

Troubles in Paradise “In the Beginning” James Downard

1.7 • Teach the *Kulturkampf* (Updated 12 March 2017)

1.7 Section 1: The Intelligent Design movement comes along to save the day (& hide the ball).

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Just as evolutionists were gearing up to joust with Creation Science, along came the Intelligent Design movement to turn the tables. In a way, it was the revenge of the *American Scientific Affiliation* approach to creation, which had never clutched at the deadening anchor of Flood Geology to begin with. Distracted by the glare of Henry Morris’ fireworks, evolutionary writers were often too busy targeting the carrying capacity of Noah’s Ark to notice the subdued emergence of religiously devout scientists and philosophers from the halls of academe. These new antievolutionists were holding up the Big Bang as the ultimate act of creation, while endeavoring to undermine the viability of naturalistic theories on the origin of life by challenging its very chemistry.

The first player on this new field came in 1984: Charles Thaxton, Walter Bradley, and Roger Olsen’s *The Mystery of Life’s Origin* picking through the limited research on prebiotic chemistry to argue that life could not have originated naturally. While the origin of life was an inevitable target for antievolutionary apologetics, the aforementioned *Of Pandas and People* filled another important niche. Put out by a group of Texas creationists for John Buell’s *Foundation for Thought and Ethics*, it was written by Percival Davis and Dean Kenyon and intended as a supplementary school textbook. After the court losses in the 1980s its text went through iterative revisions to replace references to “creationism” with an even more neutral phrase: “Intelligent Design” (which creative evolution would come back to haunt the ID movement at the Dover trial in 2005, discussed below).

Even though its argument hadn’t changed, the *Foundation for Thought and Ethics* thought *Pandas* could serve as a secular resource along with the Thaxton book because, after all, neither explicitly mentioned any Creator, Matzke (2009d). The absence of Bible references satisfied Phillip Johnson (1991, 188) too, declaring ‘its methodology is far more empirical than that of the *Framework*’ used by the California State Board of Education. That characterization may be kept in mind in subsequent chapters

when the empirical claims of *Pandas* are explored regarding such fossil matters as the reptile-mammal transition and bird origins.

The idea that showing “design” in nature implicitly favored Creation was an unspoken presumption that would immediately fall on receptive creationist ears, such as the premiere issue of *Think & Believe* (1984a) at Dave Nutting’s *Alpha Omega Institute*, which would extol the virtues of *Pandas* in Shaver *et al.* (1996) without ever acknowledging that scientists could object to the content of that work as factually flawed. Instead, their *Kulturkampf* perspective positioned *Pandas* only as a chip in the game they were playing with “the Humanist Left and their markedly evolutionist texts complete with naked apes and ‘evolving’ humans.”

Of course, the invigorated antievolutionary movement still had to deal with that pesky fossil record, and resolve its many evolutionary implications. Arguably the most influential work here was Australian biochemist Michael Denton’s 1985 *Evolution: A Theory in Crisis*. While Morris and Gish were wallpapering over their Biblical convictions to appear innocuous enough for secular consumption, and *The Mystery of Life’s Origin* and *Of Pandas and People* were presenting a secularized argument from within the religious community, Denton was not defending a religious position to begin with, and so readily restricted his argument to scientific issues and evidence. Touching (albeit very inadequately, as we’ll see) on topics from paleontology to biology, Denton impressed a lot of people for whom “Creation Scientist” was just a synonym for crank.

Though it attracted the cranks too, with *Think & Believe* (1989c) certain that it “demolishes evolution as usually taught in schools.” The *Alpha and Omega Institute* could have been let off the hook since Denton’s book was only a few years on the table at that time, were it not for *Think & Believe* (1995b) still rereading its content, such as his superficial treatment of bird evolution, covered in **Chapter 2** of Downard (2004). And decades after *Evolution: A Theory in Crisis* appeared, the Jehovah’s Witness *Watchtower* (2010c) magazine was still invoking Denton (describing him as a “molecular biologist”) to support the claim that Darwinian evolution was “one of the greatest myths of our time.”

Although evolutionary theory wasn’t actually *in crisis*, as Spieth (1987) noted in his review of Denton’s book, people orbiting the cultural demographic who would very much like to see it that way were inspired by Denton’s example and got the full Intelligent Design ball rolling, starting particularly when Berkeley law professor Phillip Johnson put *Darwin on Trial* in 1991. Johnson’s joining the antievolution campaign was a seminal event, galvanizing a host of activists who ultimately ended up associated with the *Discovery Institute* approach to antievolutionism. One of the *Discovery Institute*’s “Dissent from Darwinism” signatories, chemist Leon Combs (2009), went so far as to think that Intelligent Design “is a creation theory developed initially by” Johnson, but views almost as effusive were offered by the various contributors in the laudatory Dembski (2006b) anthology, *Darwin’s Nemesis*. The *Foreword* by Senator Rick Santorum (2006) succinctly summarized what Johnson’s “extraordinary leadership” meant:

namely, to rid science of false philosophy. The importance of the cause is clear: what could be more important than showing that only a shallow, partisan understanding of science supports the false philosophy of materialist reductionism, with its thoroughly unscientific denial of formal and final causes in nature and its repudiation of the first cause of all being? As the decline of true science has been a major factor in the decline of Western culture, so too the renewal of science will play a big part in cultural renewal.

Readers at this point may pick up their jaw. The blithe certainty with which Senator Santorum (whose familiarity with the nuts-and-bolts of current scientific understanding has proven so far undetectable) professes that “true science” has been in decline (all downhill since 1859, Rick, or only since particle physics and plate tectonics?) is no more over top than the Olympian ambitions of the

Discovery Institute (2002a) itself, which has declared that “Design theory promises to revitalize many long-stagnant disciplines by recognizing mind, as well as matter, as a causal influence in the world.” But looming over the laughable impression of current “materialist” science as mired in lethargic confusion is the transformation of this pseudo reality into “a major factor” in our cultural slide down into the abyss—and would that be national health care and gay marriage, or the decline in lynchings or pogroms or polio outbreaks, that signals our present iniquity?

Make no mistake about it: Rick Santorum and the sundry folk orbiting the *Discovery Institute* black hole believe exactly what they say. They genuinely are fighting a deeply felt culture war, striving to preserve the very stuff of civilization—or at least the culturally conservative stumps of it that poke through a forest of contemporary diversity many of them find increasingly discordant. However much the Intelligent Design debate plays out on the seemingly technical turf of which gene or fossils exist and what they may signify, behind the techno-babble is an army of culture warriors marching to the barricades in order to save Civilization as Only They Think They Know It.

That Johnson’s assault on evolution was going to play out on this fairly narrow *Kulturkampf* field was illustrated from the get-go by who paid attention to *Darwin on Trial* and who didn’t. The scientific literature didn’t bother with it after it appeared, presumably under the assumption that it wasn’t actually a work of science and so merited none. It did garner a flock of notice in *Christianity Today*, though, beginning with the favorable review by Woodward (1991) that August. When the nominees for best *Christian books of the year* were listed in November (p. 40), *Darwin on Trial* (a book that never explicitly mentioned Christianity or religious claims, remember) was among those 45 listed on “Contemporary Issues.” The April 6, 1992 issue (p. 41) announced that Johnson’s work had tied for runner-up as Book of the Year (losing to a work critical of evangelical feminism).

Doug Bandow (a Fellow of the *laissez-faire* conservative Cato Institute, and author of works like *The Politics of Plunder: Misgovernment in Washington*) likewise enthused about Johnson’s pivotal work. “Johnson lacks a technical background,” observed Bandow (1991), “but he makes up for that deficiency with his ability to deconstruct poor reasoning.” A skill Bandow failed to apply to the many flawed arguments offered in *Darwin on Trial* (as we shall see in the chapters to come). Ray Bohlin (1992) also accepted Johnson’s arguments without critical reservation, as did *Think & Believe* (1992a) for the *Alpha Omega Institute*—though noting “Johnson does not ‘understand the concept of creation as narrowly as Duane Gish does’ (p. 113).”

Things came to a popular head for Johnson’s bomb after conservative author William F. Buckley (1925-2008) and his *National Review* magazine got into the act, suggesting *Darwin on Trial* was information too hot for nervous evolutionists to handle. When Buckley welcomed Johnson on his PBS *Firing Line* series, they demonstrated an inability to deconstruct the poor reasoning of their own as they engaged in a leisurely round of softball questions-and-answers. At that time a dedicated *Firing Line* viewer, it was through that interview that I first heard of Johnson and his book. Knowing a lot then about fossil data (for example the details of *Archaeopteryx* and the dinosaurs, along with the reptile-mammal transition) I was appalled at what I was hearing. In those pre-email days I wrote to *Firing Line* in umbrage, getting a reply where I learned that Buckley hadn’t actually read the work for himself, but had relied instead on a precise prepared by his sister. At that point I realized that the legal notepad he invariably had on his lap very likely represented just another instance of what may have been a standard practice for him: relying on his crib sheet for the secondary gleanings of possibly unreliable sources. With that methodological epiphany I could never take Buckley’s views so sincerely since.

Thus the Buckley episode marked a turning point for me both in my political perceptions but more significantly for my methodological ones. And as I commenced to analyze just how Johnson had put together his argument, diving ever more deeply into the technical evidence for evolution that *Darwin on Trial* so glibly traipsed past (or failed to make it onto Buckley’s notepad), I endeavored to hone my scholarly methods approach to an ever more precision instrument.

The design movement ratcheted forward one more notch when Lehigh University biochemist Michael Behe entered the fray. Behe (2006b, 39-45) was deeply impressed by *Evolution: A Theory in Crisis* (though describing Denton as a “geneticist”) and when *Science* (1991) likened *Darwin on Trial* to Creation Science thinking, the protest letter Behe (1991) dispatched caught the attention of Johnson and he was “in the loop” from that time on. Though Behe has never investigated whether Johnson’s reasoning in *Darwin on Trial* really was all that distinct from what Creation Science had been churning out for twenty years (this is especially true for Johnson’s approach to the fossil record, but then Behe has shown no interest in that either), he pressed on along the Dentonian path to plant a design flag of his own.

Phillip Johnson organized a conference in California in 1993, gathering together a gallery of soon to be oh-so-familiar figures in the Intelligent Design movement: Michael Behe, William Dembski, Jonathan Wells, as well as two young YEC believers, Paul Nelson and Kurt Wise, Lebo (2008, 43-44). There was a deliberate effort at this point to “disagree amicably” (Nelson’s phrase) over those issues like the age of the Earth that were, when they stopped to think about it in the “big tent” way Phillip Johnson did, the only thing distinguishing Intelligent Design advocates from their YEC brethren. Indeed, as we’ll see, never would there ever be heard a discouraging word over any creationist geochronology claim (no matter how outrageous or strained) from anyone in this new Intelligent Design network.

Whether by natural temperament or intentional design, geochronology and temporal sequence played no role in the next big move made in ID’s Great Game. Prying open *Darwin’s Black Box* in 1996, Michael Behe declared all the “irreducible complexity” inside defied evolutionary explanation. This was the idea that some biochemical systems are too interlocked to have evolved by stepwise modification from functioning precursors—things like the immune system, blood clotting, or that Intelligent Design poster child, the rotating bacterial flagellum—which claims are investigated further in **Chapter 4** of Downard (2004). The concept wasn’t all that novel in creationist circles, though, as Barbara Forrest (2008c, 192) noted of creationist Ariel Roth’s testimony at *McLean v. Arkansas* in 1982, but Behe’s Irreducible Complexity (IC) tag promptly gained antievolutionary traction.

Although the biological department at Lehigh did not share Behe’s ID enthusiasm, *Darwin’s Black Box* was promptly embraced by antievolutionists across the spectrum, from David Buckna (1996) and Ray Bohlin (1997) to Daniel Lapin (1999, 53), lauding those “courageous men” Phillip Johnson and Michael Behe for driving “six-inch, titanium steel nails” into “the coffin of Darwinian evolution.” At the *Alpha Omega Institute*, Mary Jo Nutting (1997) and *Think & Believe* (1997; 1998a) enthusiastically recycled Behe’s arguments, as did one of their “avid 16 year old readers” Kristy Dean (1998)—though how deeply any of this took is hard to determine, as Dean’s post-essay antievolution footprint was as of June 2014 otherwise nonexistent.

Behe (2001b; 2013a) reflected the narrow *Kulturkampf* character of ID support on the occasions he has enthused how *Darwin’s Black Box* had been “named by *National Review* and *World* magazine as one of the one hundred most important books of the 20th century.” Note that it was not leading technical venues like *Science* or *Nature* or even general science magazines like *Scientific American* or *New Scientist* rendering these judgments, but a *conservative political* magazine and an even more *conservative religious* magazine (*World* was described as “our partners” by the Christian Broadcasting Network in 2001, and whose editor, Marvin Olasky, was actively circulating in Jerry Falwell’s fundamentalist creationism during the 1980s, section 1.6 above) while Behe’s work may have got a partisan leg up on the *National Review* list because George Gilder of the *Discovery Institute* happened to be on its selection board, *National Review* (1999).

The ID movement began to intersect with these political elements more directly when Behe and Johnson joined other advocates at the *Discovery Institute*, at that time a conservative Seattle think-tank devoted to regional business development and broader economic issues such as privatizing Social Security. The *Discovery Institute* hasn’t abandoned its political concerns by any means, reflected by

their email traffic: *Discovery Institute* (2011h) announced their new “Center on Wealth, Poverty and Morality” (led by their Senior Fellow Jay Richards), while *Discovery Institute* (2013b) helped sponsor a conference on “Conservative Governance in Washington State: Prospects for the 2014 legislative session and beyond” paneled by three conservative Republican state legislators.

The revised 1992 edition of *Of Pandas and People* reflected this concatenation, as its publisher the *Foundation for Thought and Ethics* drew in more players. Behe and Stephen Meyer contributed material as the book was retooled along the new Intelligent Design lines in order to render it ostensibly creationism-free. Meyer’s “own skepticism about Darwinism had been well cemented” by the time he met Phillip Johnson in 1987, Meyer (2006, 33). An instance of what philosophical gravel was mixed into that cement would be the moralizing warning on “Human Rights: Blessed by God or Begrudged by Government?” he coauthored with Charles Thaxton for the *Los Angeles Times*, Thaxton & Meyer (1987).

Meyer helped found the *Discovery Institute* (more on that in due course) and eventually moved from his philosophy professor slot at Whitworth University in Spokane to take up a full time post at the *Discovery Institute*—pulling down a hundred and fifty grand in Seattle according to the 2010 records obtained by *Sensuous Curmudgeon* (2012c), which I suspect is a far better deal for Meyer than an associate professor’s pay was at his old college in the smaller pond of Spokane.

Mathematician William Dembski also came on board to promote his “specified complexity” approach to slaying evolution, inspired by the logic of the Thaxton *Mystery of Life’s Origin* book, though again retooling concepts that had been knocking around in creationist apologetics at least since Norman Geisler in the 1980s, Forrest (2008c, 192). In *No Free Lunch* in 2002, Dembski got about as detailed as he was ever going to get to suggest that genetic information and processes represent coded information that in principle could not have originated or developed by natural means. And because Dembski’s arguments are long on formulas and confidence, the imprimatur of mathematical certainty seemingly about them, “specified complexity” has been a very attractive ID argument. *Discovery Institute* (2014d) pegged Dembski as “one of the handful of true rock stars of the intelligent design movement” —perhaps showing as much facility here in redefining the meaning of “rock star” as they’ve lavished on retooling “the scientific method” and entombing the “evidence for evolution.”

One other figure at the *Discovery Institute* warrants primary notice: Jonathan Wells, the combative Unification Church minister whose 2000 book *Icons of Evolution* quickly took off as the ubiquitous resource for modern creationists, such as Gailon Totheroh (2001a-b) for the *Christian Broadcasting Network*, or Sonmor (2001) recommending it to the *Alpha Omega Institute* following. And it’s not hard to understand why: Wells insists that evolutionists are manipulative frauds who regularly distort the evidence, from the dino-bird *Archaeopteryx* to the peppered moth (where bird predation of moths against darker smoke polluted trees led to a color change from light to dark, and back again once air pollution was curtailed).

If you’re a creationist who needs somehow to dispose of all the contradicting evidence of regular science, it’s a lot easier to do that if you have someone like Jonathan Wells telling you that non-ID scientists are a bunch of fakers and frauds. Especially so if you never check up on Wells, which is not something the average creationist is disposed to do. As we’ll be seeing through the course of this book, though, Wells leaves out relevant information on a truly majestic scale, and would have netted him the title of “the Duane Gish of Intelligent Design” had Casey Luskin not come along in the meantime to outstrip Wells by sheer volume of output.

All of the core approaches of Intelligent Design (a flawed fossil record abetted by evolutionary fraudsters unable to accept the dire truths of Irreducible Complexity and Specified Complexity) fell into place during this early period among the *Discovery Institute* Fellows, and the following years have simply spooled their arguments out in various venues.

1.7 Section 2: Applied Intelligent Design I—The Danny Phillips case and slouching toward Robert Bork

Not that Creation Science was out of the picture—far from it. While the *Discovery Institute* was ramping up their game, the *ICR* remained as active as ever, and Australian creationist Ken Ham moved on from there in 1994 to form his own organization: *Answers in Genesis*, providing a parallel venue for YEC advocates to supply budding antievolutionists operating at the local church level with volumes of evidential factoids, first in print and later online. That milieu inevitably filtered through the subculture, from a New Mexico student wanting her creationist preacher’s video lecture against evolution shown in biology class, Bruce Miller (1997), to Academic Standards Commissioner LaTanya Wright not wanting creation left out of California’s schools, or the Iowa Republican Party supporting the inclusion of “CREATIONIST produced resources in ALL TAX funded public and school libraries,” Matsumura (1998a,d), while the Illinois Board of Education adopted the ostrich position of not mentioning evolution due to its “controversial” aspects, Matsumura (1997a).

It was that subculture that brought high school student Danny Phillips onto the creation/evolution scene in Colorado. In 1996 straight-A student Danny was fifteen and attending Wheat Ridge High School in Jefferson County, outside Denver. For many years their science instruction had included a 1983 PBS *NOVA* video, the Emmy Award-winning *The Miracle of Life*, which featured Swedish photographer Lennart Nilsson’s stunning filming of the human reproductive process. Early in the show though, before getting to the human embryonic shots, the narrator (Liam Neeson) touched on what had happened in the vast stretch of **Deep Time** before humans came on the scene: the formation of the Earth four and a half billion years ago, the first appearance of cellular life, and that “From these one-celled organisms evolved all life on Earth.”

That did not set well with Phillips. Son of a local pastor, Phillips had learned the *ICR* “Back to Genesis” doctrine along with a *Focus on the Family* perspective (operating in nearby Colorado Springs) that did not entertain alternatives outside Creation Science, objecting to a mere “theory” like evolution being presented as factual along with the YEC-defying Big Bang origin of the universe. Although Phillips never advocated teaching his creationism in the school, readily affirming how he only wanted to see the full range of facts presented, Henry *et al.* (1996) and McInerney (1997), he did want the regular textbook (*Biological Science: An Ecological Approach*) dropped in favor of alternatives like *Of Pandas and People* that amounted to the same thing when it came to creationist biological arguments.

In public statements Phillips showed a marked reluctance to specify just what facts he had in mind for inclusion, apart from vague references to the supposed absence of intermediate forms in the fossil record, such as when interviewed by Canadian creationist David Buckna & Phillips (1997). Buckna quoted in full a letter Phillips wrote to the school officials, full of freedom of inquiry and giving the students all the facts, but never quite getting around to what those “facts” might be, or from where he might be obtaining them. The perennial methodological concern of what a creationist considers “evidence” and how much of it is simply retread YEC antievolution doctrine was right there just offstage in the Phillips case, rattling rather noisily in the wings, if only you stopped to listen. In his reportage of the Phillips affair for *Education Week*, David Hills (1996) took note:

I couldn’t help but feel that Danny’s calls for fair-mindedness were somewhat disingenuous. After all, in the complaint he filed with the district, he said he was insulted by the theory of evolution because it “contradicts God’s creation of the world.” Therefore, he was “prompted to stop it.” His religious beliefs, not his concern about “fairness” or “factual science,” seemed to be his primary motive for seeking the removal of the videotape and textbook.

Moreover, Danny seemed unable to see the debate in anything but either-or terms. For instance, when I asked him if he thought it possible to be a Christian and also believe in evolution, he was hardly charitable in his answer. “That’s a difficult question,” he replied. “There are many Christians who are ignorant about a great many things, ... I

believe that Christians who look at the Bible and say, 'We can't interpret this literally,' I wouldn't call them Christians. According to God, the Bible is the inherent truth of God. ... I wouldn't necessarily say that if they believe in evolution, they're not Christians. But they're definitely ignorant."

Phillips' attitude may be contrasted with the Christian convictions of fellow-Coloradoan Steven Smith (1998) recalling the public meeting where the video and book issues were aired. Coming from Phillips' own denomination, Smith knew firsthand just what they were teaching, and how little it prepared believers to deal with the full body of science fact—which Smith had to come to grips with later in the process of becoming a working geologist, coming to abandon the strict YEC of his upbringing in favor of an OEC-Theistic Evolution framework. Because the fundamentalist Christian worldview Phillips believed in had more to object to than just evolution (including much of modern physics), Smith was concerned about the precedent that the school board would be opening up if they agreed to Phillips' demands on the PBS video and BSCS textbook.

Smith also called attention to the coverage Phillip Johnson had given to the Phillips case in *Defeating Darwinism by Opening Minds*, which book would have been prominently placed in many Christian bookstores at the time (it certainly was in Spokane). Unlike Smith, who openly expressed the qualms he had about the YEC baggage Phillips' church and what this might mean for undermining science education, Johnson highlighted a different set of issues, spring boarding off the same video narration line ("From these one-celled organisms evolved all life on earth") that had inflamed Phillips:

Science education today encourages students to memorize that sort of naturalistic doctrine and repeat it on a test as fact. Because Danny has a special interest in truth, however, and because his father is pastor of a church that has an interest in questioning evolutionary naturalism. Danny knew that this claim of molecule-to-man evolution goes far beyond the scientific evidence. So he wrote a lengthy paper criticizing the *Nova* program as propaganda. School administrators at first agreed that Danny had a point, and they tentatively decided to withdraw the *Nova* program from the curriculum. That set off a media firestorm.

Of course Danny was making a reasonable point. The doctrine that some known process of evolution turned a protozoan into a human is a philosophical assumption, not something that can be confirmed by experiment or by historical studies of the fossil record. But the fact that administrators seriously considered any dissent from evolutionary naturalism infuriated the Darwinists, who flooded the city's newspapers with their letters. Some of the letters were so venomous that the editorial page editor of the *Denver Post* admitted that her liberal faith had been shaken. She wrote that 'these defenders of intellectual freedom behaved, in fact, just like a bunch of conservative Christians. Their's was a different kind of fundamentalism, but no less dogmatic and no less intolerant.' *Johnson (1997b, 34-35)*.

This paragraph may be taken as a seminal moment in the Intelligent Design movement. Up until then the attitude was that you could be a critic of natural evolution without having to embrace Young Earth Creationism, and so long as the issue didn't come up, ID advocates could hold to that position. But Danny Phillips was a Young Earth Creationist, and so represented a decision gate: by making no mention of Danny's creationist beliefs, Johnson was tacitly enabling it, winking at him not to worry, you don't have to give up your YEC beliefs to get a warm embrace under the Big ID Tent.

That was the unspoken message accompanying the framing of Danny as someone exhibiting that laudable dedication to "truth"—by exclusion suggesting non-YEC Christians of the Steven Smith stripe

were chasing after something else. In commenting on Johnson’s proliferation of “fascinating and instructive stories from scientific, legal and educational controversies” to further buttress his anti-materialism arguments in his subsequent books, Thomas Woodward (2006b, 77, 324n) perfunctorily listed the Danny Phillips case from *Testing Darwinism* (the less confrontational title of the UK edition of *Defeating Darwinism*) without investigating any of its content or context.

With the design movement promoters obdurately oblivious to what might actually be going on among the grass roots of American creationism, the grass roots plowed on with enthusiasm. Echoing the Johnson cue sheet, *Creation Tips* (2009d) declared Phillips was subjected to a “Hate Campaign” as “Evolutionists sent a barrage of vicious letters to the city’s newspapers,” examples of which they neglected to specify any more than Johnson had. When I endeavored in 2014 to check out the degree of vituperation Phillips may have elicited from angry evolutionists I discovered the *Denver Post* online archive did not preserve material from that period, though given Johnson’s characterization of the “vehemently hostile” letters to the editor regarding the David Raup mass extinction issue (section 1.2 above) there is room for reasonable doubt as to how “venomous” or “vicious” the submissions critical of Danny Phillips may have been. The trope of persecuted students challenging the disintegrating Darwinist education monopoly continued to circulate through the creationist subculture, Thwaites (2002) noting an example in the *ICR’s Acts & Facts*.

But even stipulating that some of the *Denver Post* letter writers were as snarky or as intemperate as sometimes may be found in comment threads at *Pharyngula* or *Panda’s Thumb*, the fact remains that Phillip Johnson’s disinclination to investigate just what manner of evolution criticism Phillips had in mind allowed him to embark on a fast sprint up a very different mountain, as he made plain in his Research Notes for the Phillips affair:

The essay by National Academy of Sciences President Bruce Alberts, “Evolution Versus Creationism: Don’t Pit Science Against Religion,” was published in *The Denver Post*, September 10, 1996, p. B9. The essay is a compendium of the usual spin-doctor arguments that official science organizations rely on to stop any serious questioning of evolution or materialism before it can get started. I recommend that teachers look for essays of this kind and use them for critical-thinking exercises after students have read chapters three, four and five of this book. One thing to notice right away is the title: the debate is set up as pitting creationism (that is, an ideology) against evolution (no *ism*, therefore a fact). No matter what the evidence may be, an ideology (especially a religious ideology) can never beat a “fact” in a debate conducted under scientific rules. Scientific materialists actually see the issue that way, and so they naturally frame the debate in those terms. I always insist that an *ism* be put on both words or neither. Let the debate be between the competing facts (creation and evolution) or the competing ideologies (creationism and evolutionism). Better still, let it be between theism and materialism. What was present and active in the beginning, God or matter? That frames the question correctly and levels the playing field. *Johnson (1997b, 124-125)*.

As indeed it does, if the sole object of Intelligent Design apologetics is to circumvent every issue of substantive technical fact (such as the inadequacy of the *Of Pandas and People* creationist volume Danny Phillips recommended for school use—and whose factual content Johnson has studiously failed to evaluate) by wadding them up into manageable shuttlecocks so that they might be quickly lobbed out of a philosophical court where only the theism vs. materialism contest may be played. Most ironically, the actual views creationists hold are not allowed on Johnson’s “God or matter” court—reducing Danny Phillips in the end to just another tactical prop, something like the fictitious relatives Poo-Bah invented as part of a cover story in Gilbert & Sullivan’s *The Mikado*, included as “merely corroborative detail,

intended to give artistic verisimilitude to an otherwise bald and unconvincing narrative.”

Only we’re not doing Victorian comic opera here, but dealing with the all too serious subject of whether students in the 21st century deserve a scientifically accurate education, and what might be at stake for “a well-informed electorate” (to borrow some Thomas Jefferson rhetoric) once that procedure is compromised by ill-informed political or *Kulturkampf* interference.

Francis Beckwith (2006, 106-110) followed this track when commenting on Kelly Segraves’ 1981 lawsuit (discussed above in section 1.6). More even than the *CreationWiki* (2014b) coverage, Beckwith stepped completely away from what Segraves actually believed about evolution and geology to frame the suit in terms of Beckwith’s concern over Naturalism, especially whether belief in the soul was in conflict with “the claim of materialist philosophers.” That Segraves would also be complaining about references to carnivorous dinosaurs dying out 65 million years ago never crossed Beckwith’s rarified legalistic gloss, but at least Beckwith took note of Segraves. The even more generalized Phillip Johnson (1991, 140-141) characterized the California standards in much the same way anti-naturalism way as Beckwith, except he made no mention of the Segraves lawsuit (an interesting omission for the Berkeley lawyer that put him doubly removed from Segraves YEC world).

Just how far up the philosophical food chain such games were being played was illustrated early on in the ID debate when former Supreme Court nominee Robert Bork (1927-2012) felt disposed to sideswipe evolution in his diagnosis of the ills of modern American society, *Slouching Towards Gomorrah*:

The major obstacle to a religious renewal is the intellectual classes, who are highly influential and tend to view religion as primitive superstition. They believe that science has left atheism as the only respectable intellectual stance. Freud, Marx, and Darwin, according to the conventional account, routed the believers. Freud and Marx are no longer taken as irrefutable by intellectuals, and now it appears to be Darwin’s turn to undergo a devaluation.

The fossil record is proving a major embarrassment to evolutionary theory. Though there is ample evidence of evolution and adaptation to environment within species, there is not evidence of the gradual change that is supposed to slowly change one species into another. A compelling argument for why such evidence is missing is provided by the microbiologist Michael Behe. He has shown that Darwinism cannot explain life as we know it. Scientists at the time of Darwin had no conception of the enormous complexity of bodies and their origins. Behe points out that for evolution to be the explanation of features such as the coagulation of blood and the human eye, too many unrelated mutations would have to occur simultaneously. This may be read as the modern, scientific version of the argument from design to the existence of a designer. *Bork (1996, 294).*

Evolutionary biologist H. Allen Orr (1996d) noted Bork miscued even when it came to what manner of scientific discipline Behe represented: “Revealing his expertise on such things, Bork misidentifies Behe as a ‘microbiologist,’ not a biochemist.” The two fields are not the same (the former deals with the activities of microorganisms, while the latter focuses on the chemical details of living systems, but not necessarily engaging how they relate in a larger biological context). Behe’s published work related primarily to protein folding, not blood clotting or eye evolution, and certainly not paleontology.

What the Bork passage does exhibit is all the methodological delinquencies of the creationist worldview in dehydrated form. There is the conflation of evolution with atheism and radical politics, with the presumption that once these annoying obstacles are elbowed aside the business of spiritual regeneration will proceed unimpeded. Just what functional bearing all this could have on substantive

questions like dinosaur phylogeny or variations in genetic sequencing never occurred to Bork, who was in far too much a hurry sprinting for the Light to offer any documentation other than *Darwin's Black Box*.

But invoking Behe here was disingenuous on several levels. First, Behe did not discuss the fossil record or the speciation process at all in *Darwin's Black Box*, so how exactly was Bork divining what the state of evolutionary evidence was? In fact, in one of the more remarkable declarations in the antievolutionist canon, Behe (1996a, 5) explicitly stated: "I find the idea of common descent (that all organisms share a common ancestor) fairly convincing, and have no particular reason to doubt it." That Bork could skip past this stupefying concession should not be unexpected, for Behe managed to sidestep all its implications rather gingerly as well, though Young Earth Creationists like Thane Ury (1997) certainly noticed over at *Answers in Genesis*.

It is also interesting to consider that *Darwin's Black Box* appeared the same year as Bork's own book, raising doubts about just how thoroughly the Supreme Court nominee could have digested its technicalities (and merits) any more thoroughly than hair-trigger creationists had, before deploying its "compelling argument" against evolution. Unless, that is, *Darwin's Black Box* came along serendipitously to reinforce Bork's own predilections, and so became fodder for precipitous citation, not measured assessment.

As the evidence in Downard (2004) illustrated (and section 1.3 on punctuated equilibrium has teased you with), far from being a "major embarrassment" to evolution, the fossil record has abundantly comported to its expectations. In this respect Bork sounded exactly as confident (and glib) as Hank Hanegraaff (2005b) when likewise affirming how "the fossil record continues to be an embarrassment to the Darwinian theory of evolution" while drawing on the creationist undertakings of Morris & Parker (1987).

Furthermore, despite Bork's authoritative tone about evolution only occurring "within species," the fact remains virtually all creationists (let alone evolutionists) tactically admit quite the opposite in just the cavalier way Behe had. Antievolutionists endeavor to cordon off its nasty effects, of course, by dismissing the process as merely "microevolution" within amorphous "types" (the current buzzword replacement for the more obviously scriptural term, "kinds"). Behe's shallow acquiescence to common descent notwithstanding, rank-and-file creationists "accept" speciation with one hand and push it away with the other, for they *never* apply this insight to seriously evaluate life in the past. For quite sound reasons, as it happens, as once you start playing the speciation "connect-the-dots" game you end up with theologically unacceptable chains of "macroevolutionary" transformation. Better then to just not play.

Bork evidently thought it perfectly acceptable to submit these sweeping generalities about what the state of modern evolutionary thinking was without even a ripple of familiarity with any actual evolutionary technical literature. He may well have thought his comprehension of the problem was so apparent and reasonable no corroborative citation was necessary, just as I saw no need to drop piles of background for my claims about the scientific vacuity of astrology back in section 1.2 (though one is perfectly capable of doing so). But since the evolutionary character of the fossil record and the objective status of speciation are actually at such complete odds with Bork's account, something more than thin air should have been tendered in defense. This is doubly ironic, given how finicky Bork was during his confirmation hearing about several Supreme Court rulings, criticizing their supposed reliance on "penumbral" constitutional rights inadequately specified to his satisfaction. Bork's *Slouching Towards Gomorrah* had conjured up his own penumbral fossil record, and hung on it the sins of the modern secular world.

What effect Bork's cavalier conceit might have had on matters of creationist litigation had Bork been confirmed to the court is anybody's guess. We already had the examples of Justice Scalia and Chief Justice Rehnquist dissenting from the 1987 Louisiana "balanced treatment" law. But by the late 1990s the antievolutionary center stage had moved from Creation Science legislative overreaching to

Intelligent Design public relations.

1.7 Section 3: Tom Willis Hammering the Wedge—Kansas 1999 and a world not in motion

By 1999 the *Discovery Institute* had a new game plan manifesto, the Wedge document, which articulated the goal of overthrowing materialism to make science “consonant with Christian and theistic convictions,” *Discovery Institute* (1998). This sure sounded like an obviously theistic rationale for the design movement, at odds with their professed disconnection from religious assumptions, and ID apologists from *Discovery Institute* (2005a) to Dennis Jones (2013e) have taken pains to recommend that bystanders pay no attention to the man behind the curtain.

But a revealing illustration of the minefield of antievolutionary thinking the design movement was marching into, and how ill-equipped philosophically they were to grapple with it, occurred when creationist activists got elected to the state’s board of education to revise the science curricula to make the state more congenial to *Kulturkampf* sensibilities. Full texts of the various drafts for the standards remain available for inspection, *Kansas Science Standards* (1995; 1999a-d; 2001), with detailed comparison analyses by Jack Krebs (1999b) and *Kansas Citizens for Science* (1999; 2000) of what the creationist revisions were up to.

Design advocates from Phillip Johnson to Phyllis Schlafly fell over one another in praising this effort to stem the spread of evolutionary indoctrination in education, yet paid no attention to the full content of the revisions, which went way beyond coddling ID at the sacrifice of logic and evidence—the Kansas revisionists also wanted the Big Bang out of the “evolutionary” picture too, Glanz (1999).

The nominal sponsor of the 1999 revision effort was veterinarian Steve Abrams, former head of the state Republican Party, who drew on a block of creationists for advice in wording the provisions. But the chief author of the Kansas revisions was Tom Willis, who serves as President of the YEC *Creation Science Association for Mid-America*, Krebs & Case (1999), with Willis (2000a) acknowledging that “a number of the members of the Creation Science Association for Mid-America were personally and intimately involved” in the drafting of the standards.

Only a few of those covering the Kansas affair took note of the Willis connection, curiously enough, such as the “Happy Heretic” Judith Hayes (2000, 191-192) and William Piotrowski (1999) for *Religion in the News*, though Piotrowski did slip a cog *en route* in describing lawyer Phillip Johnson as “an engineering professor”!

To give a quick measure of how jejune Willis’ understanding of rather fundamental processes were, apropos some fossil fish in a Kansas museum Willis (2000b) insisted they had been dated by “the guesswork of Lyell,” but that “the bogus Lyell dating has endured, even in the light of the new concept of punctuated equilibrium.” Here is that “evolution is just a guess” notion Scalia danced past in 1987 spooling out once again a decade later, where the scientific work of past investigators is flicked aside as easily as cigar ash. Recalling the analysis of the punctuated equilibrium issue in section 1.3 earlier, though, one can only marvel that Willis somehow thought P-E had anything at all to do with *geological dating methods*.

Willis found most everything about evolution disagreeable, even characterizing the University of Kansas’ natural history exhibits as blasphemous, *Ecological Society of America* (2000). When interviewed online for the *Washington Post* (1999) to answer questions on the controversy, Willis reflected the conflict and confusion that was playing out as his YEC worldview collided with the outside world. Willis affirmed the complete scientific accuracy of Young Earth creationism and reminded the listeners how God “clearly forbade teaching evolutionism: ‘Thou shalt not bear false witness.’” Willis insisted also in adjoining sentences: “The new Kansas Science Standards do not prevent the teaching of evolution one bit. It is a myth that there is no evidence for Biblical Creation.”

So at the grassroots level of Kansas in 1999, was the teaching of evolution to be reduced to a perfunctory exercise contingent on a much bigger picture, the truth of biblical creationism? That’s what

their efforts were looking like, but things were far weirder than even that when it came to the amazing cosmos of Tom Willis.

You see, the idea that the *earth revolves around the sun* is another of those ideas in modern science that Willis thinks is *not at all settled*. Willis confirmed his open-mindedness to geocentrism in an interview for *New Scientist*, Bob Holmes (2000, 42). Willis (2000c) was a bit more explicit for the *CSAMA* on the subject of where he imagined the evidence stood on the earth motion issue. According to his assessment, “both the observations and the Bible indicate quite strongly that the earth does not move,” and that “For those of us interested in good science, the question remains, ‘Is this principle valid?’” The only possible honest answer for Willis was that ‘Not one shred of evidence supports the notion of cosmological uniformity, and many support the notion that, not only is the ‘principle’ balderdash, but the Earth is actually the center of the universe.”

Willis concluded his *CSAMA* treatise in a spirit of open-minded befuddlement: “The purpose of this essay is not to assert that geocentrists, or anyone else is right. I do not know who is right, though I strongly suspect that, as He promised, God will ‘confound the wisdom of the wise.’” Comforting sentiments, to be sure, at least in the pre-17th century cosmology inhabiting the brains of the *Creation Science Association for Mid-America*.

While Willis fielded a variety of juvenile objections to Big Bang cosmology, he was utterly oblivious to how irrelevant this was to the central issue of heliocentrism. To accept geocentrism meant functionally junking the work of that archetypal “Christian scientist” poster boy Isaac Newton (whose gravitational calculations do rather turn on our tiny Earth orbiting the really big Sun, and not the other way around). Which, come to think of it, puts Willis in the same leaky boat as Phillip Johnson’s “theistic realism,” where physicist Steven Weinberg spotted a similar problem there concerning the role of theory in science and how Newtonian gravitation fitted in, covered in **Chapter 4** of Downard (2004).

Consider also that because Willis (2008a) believes it is the science of modern evolution that is so faulty, and its practitioners so pernicious, he would prefer evolutionists not be allowed to *teach at any level of education, vote or hold public office*—which, come to think of it, is also rather similar to the way civil liberties in general were conducted back in the pre-17th century era when the sort of cosmology Willis is attracted to was more popular. Societies get exactly what they value, remember.

All this would be disconcerting enough if it were the only instance of creationist geocentrism sticking its nose into American science education. But as it happens, Paul Ellwanger (who inspired the 1980’s “equal time” legislation efforts, remember) is also a geocentrist, as may be seen in Ellwanger (1998). It is interesting that in his summary of the 1982 *McLean v. Arkansas* creationism trial, John Whitehead (1982) listed among the *Factual Inaccuracies* the court had committed (Whitehead’s ellipses): “Paul Ellwanger in supporting model legislation was not ‘motivated by ... desire to see the Biblical version or creation taught in the public schools’ (p. 13, which he opposes, but instead to see all the scientific evidence on origins taught.” Geisler (1982, 22) likewise insisted that Ellwanger “desired a *scientific version* taught in the public schools.” Neither Whitehead nor Geisler ventured whether some of the “scientific evidence” Ellwanger thought worthy might also include a few that established in his mind that the Earth did not revolve around the Sun, possibly because neither of these creationist apologists bothered to explore what Ellwanger did think about such things.

Along with Ellwanger, R. G. Elmendorf (2000) represents a retrograde band of Roman Catholics who insist that those true facts of science support their fixed earth position along with all that antievolution stuff, part of a scattered community of 20th century Christian geocentrists Robert Newman (2000) catalogued in his *Access Research Network* article on “Evangelicals and Crackpot Science” (other examples of which we shall be encountering in due course). Holocaust denier Robert Sungenis is the latest entrant in the Catholic geocentrist procession, Hess (2014d).

Astronomer Francis Graham (1992) reviewed one amazing geocentric volume by Marshall Hall that accused Copernicus (and Einstein) of being part of the grand Satanic Lie, showing just how busy some

tortucans could be when all the analytical brakes were off. For ironic comparison, the medieval philosophical concern about heliocentrism didn't apparently involve Satan at all, or even anxiety that our position in the universe was being demoted—an interpretation expressed by Cyrano de Bergerac (1619-1655) and Johann Wolfgang von Goethe (1749-1832) among others that would become the preferred trope on the Copernican Revolution by the 19th century. Instead, the medieval cosmic inferiority complex noted by Danielson (2009) fretted about whether it was proper to relocate the gloriously perfect Sun to the gross center of things occupied by the “base and vile matter” of our lowly Earth, which functioned rather like a scab over “the excrementary and filthy parts of the lower world” whence heavy stuff was drawn by its Aristotelean nature, doomed to fall apart and decay.

For 17th century Copernicans, then, bumping the Earth up to a heavenly traveler seemed like a status boost, elevating our otherwise base condition into cosmic joyride, though eventually it did occur to people that the vast emptiness of interstellar space was way bigger and made the journey more intimidating than the old tidy geocentric epicycles where the Sun could be thought of as but a Greater Light just far enough away for the Lesser Light of the Moon to eclipse it every now and then. Danielson (2009, 57) quoted the *Pensées* qualms Blaise Pascal (1623-1662) had about this new vista: “The eternal silence of these infinite spaces frightens me.”

Although Eugenie Scott (2000e) placed geocentrism one notch up from Flat Earth believers on the Creation/Evolution continuum at the *National Center for Science Education* (which Scott helped found in response to the rising tide of Creation Science in the 1980s), she mentioned only 1980s practitioners and so did not connect the community to the Equal Time or Kansas cases or spot its *Kulturkampf* undercurrent. Eve & Harrold (1991, 129-130) understandably plotted modern Biblical geocentrism on the extreme right wing of creationism, and the geocentric subculture continues to burble up into politics, such as the ruckus in Texas after a Republican politician breezily included geocentric “science” claims in a memo, covered by Bruce Wilson (2007) regarding its connections to Christian Reconstructionism (more on that in due course).

That political aspect is reflected by another player on the geocentric stage, Ohio college computer science teacher Gerardus Bouw, a man with twin missions: (1) the promotion of scientific truth via the *Association for Biblical Astronomy*, publishing articles such as Bouw (2001; 2004; 2007; 2008), Stott (2003) and Hanson (2005; 2006) rejecting heliocentrism and global warming, and (2) furthering the highly conservative political agenda of the Constitution Party (a.k.a. the “Taxpayers Party”) with its recurrent presidential candidate Howard Phillips (1914-2013). Glenn Branch (2014ag) noted Bouw was slated to testify on behalf of the credibility of Creation Science back at *McLean v. Arkansas*—one can imagine what amazing statements Bouw might have ventured under cross examination, giving Geisler's satanic UFOs a run for his money.

The belief that the Bible required Ptolemaic cosmology remained surprisingly popular among certain conservative American religious denominations into the 20th century, such as the Missouri, Wisconsin and Norwegian Lutheran synods, Numbers (2007b, 38). That owed little to Lutheran doctrine, though—while late in his life Martin Luther (1483-1546) had made an offhand 1543 remark critical of the then-new Copernican idea, otherwise he appeared indifferent to the issue, and his follower Philip Melanchthon (1497-1560) didn't want to isolate the new movement from ongoing scientific trends and so readily qualified it as a mathematical concept suitable for discussion (along with arithmetic and *astrology*), Moran (1973)—it was, after all, still the 16th Century.

Modern geocentrism played a background role for members of George McCready Price's *Religion and Science Association* and Walter Lang's *Bible Science Association* (BSA) in the 1930s, Numbers (1992, 106, 237-238, 243-244). Numbers described the “codependent relationship” that endured for many years between Lang's quirky BSA and Henry Morris' *Creation Research Society*, who overlooked the BSA's geocentric elements because they avidly disseminated CRS material (a circumstance reminiscent of the current relationship the Intelligent Design movement has with their Young Earth compatriots).

BSA members also actively helped Nell Segraves prepare creationist textbooks for California starting in the late 1960s. Meanwhile, Mawyer (1987, 57) blithely described the BSA to his *Fundamentalist Journal* readers as “formed solely for the purpose of educating church laymen on how to witness to people who believe evolution is a fact.”

Toumey (1994, 128-130) related how disconcertingly open-minded members of the BSA were even in the mid-1980s to lectures by Bouw and other geocentrists. That was the period when Tom Willis and Nancy Pearcey were there. Walter Brown (1989a, 44) relied on one of Willis’s BSA paleontological claims about Lucy the australopithecine, and Martin Gardner (1997, 17; 2000b, 16) touched on Pearcey’s YEC background and subsequent migration to the *Discovery Institute*. Curiously, nothing of Pearcey’s BSA creationist work appears to be preserved online, though Paul Taylor (1995, 71) contained this secondary reference (bracketed material in Taylor):

Astronaut Neil Armstrong reportedly said his greatest fear in landing on the Moon was the expected thick layer of dust. [Nancy Pearcey, ‘The Age of the Earth: Does Mother Nature Tell?’, *Bible-Science Newsletter*, Vol. 25, No. 2 (Minneapolis, Minnesota: Bible-Science Association, February 1987), p. 9.]

The preposterous Lunar Dust Myth that Pearcey was apparently helping to promote is explored in **Appendix II** of Downard (2003b). Pearcey’s Foreword to Phillip Johnson (2002d, 7) coyly mentioned her stint as “a contributing editor for the *Bible-Science Newsletter*, an unabashedly creationist publication (now defunct)” while the biographical info on her in Dembski (2006b, 353) floated even higher overhead with a general allusion to her “writing on science and Christian worldview since 1977.” Left unsaid was how many of the BSA’s views she held in those days or whether she had occasion since to reevaluate any of her thought processes that may have contributed to her having held them in the first place. This could be of some relevance, given that her activities at the *Discovery Institute* included joining Michael Behe, Phillip Johnson and Stephen Meyer to brief Republican congressmen Charles Canady (Florida), Sam Brownback (Kansas) and Tom Petri (Wisconsin) and others on ID positions, Applegate (2000a-b).

The BSA has a spin-off organization, the *Twin Cities Creation Science Association* (currently at tccsa.tc, where the *Southern Minnesota Association for Creation* also posts), and the BSA remains active itself revamped as *Creation Moments*. By the early 21st century both groups showed no signs of recognizing their geocentric-friendly roots, particularly the history of the TCCSA compiled by Olson (2003), and may be suffering from a bout of historical amnesia comparable to the many Seventh-day Adventists I run into who are unaware of the role their denomination played in the genesis of Flood Geology. When I accessed the *Creation Moments* website on 21 August 2003 they showed their ready willingness to co-opt the ID *oeuvres*, though, by recommending Behe’s *Darwin’s Black Box* as their “Featured Product of the Day.”

Just how many geocentrists there actually are in the United States is hard to tell since pollsters do not usually measure what they may think is a totally extinct group. A 2006 *General Social Surveys* study of over a thousand adult Americans found 20% expressing disagreement with the idea that the Earth revolves around the Sun, which Mazur (2010) chalked up to the generally low level of education of those holding that view. A 2012 survey by the *National Science Board* (2014) found a similar percentage of Americans getting the “Does the Earth go around the Sun, or does the Sun go around the Earth?” wrong—a result that even got noticed by the *Kulturkampf* libertarians at *Breitbart* (2014).

Conservapedia (2016a) gave a surprisingly uncritical summary of geocentrism, suggesting an unwillingness to burn bridges. The fringe *Kulturkampf* dynamics of geocentrism were highlighted when creationist geocentrist Rudy Davis took up the defense of tax evader Kent Hovind, a symbiosis strained somewhat as the Sun going around the Earth turned out to be one accepted science idea that even loose cannon Hovind couldn’t Bible-justify himself enough to jettison, Reilly (2015j). More on the

Hovind Affair below.

One could take heart (sort of) that other regions showed comparable values, such as the European Union in 2005 and India in 2004. Whether many of the respondents were active doctrinal geocentrists of the Ellwanger and Bouw variety is unknown, though the Indian figures could also reflect their own peculiar tradition of Vedic cosmology (more on that in a later chapter). *Al Arabiya* (2015) reported on a young Saudi cleric expounding on the idea that the Earth couldn't be moving because people can fly on a plane to China without it slipping from under them and moving their destination farther away, showing that at least some 21st century Muslims can manage the same sort of relative motion ignorance that pre-Galileo Europeans harbored 400 years ago.

However miniscule their numbers may be, though, the upshot is that the two main efforts in the later 20th century to pry evolution from American public schools (the 1980s Balanced Treatment laws and the 1999 Kansas case) turn out to have been directly influenced by the reasoning skills of people who would have fallen in that 2006 survey's geocentric 20% without batting an eyelash. I think that's kind of important.

The extent to which geocentric analytical methodology has rippled through the antievolution world can be tracked by who cites what. Reed Cartwright (2007) recounted the daisy chain influence of geocentrism regarding Texas State Representative Warren Chisum, who circulated an antievolution memo channeled from Georgia State Representative Ben Bridges, who in turn had drawn on his friend Marshall Hall for his scientific evidence.

And then there's the founding sage of the Intelligent Design movement, as Philip Johnson (1991, 175) noted the work that "persuaded me that there are grounds to be suspicious of both the Java Man and Pekin [*sic*] Man fossil finds, which established what is now called *Homo erectus*," was "the privately printed *Ape-Men, Fact or Fallacy*, by Malcolm Bowden. Bowden is a creation-scientist, but unprejudiced readers will find his book thoroughly documented and full of interesting details." But Bowden is way more than merely a Creation Scientist (as if that weren't sufficient reason to be wary of his arguments)—Bowden is yet another *geocentrist*, defending his position in Bowden (2006) with such observations as:

there is evidence that the earth is NOT moving around the sun, but either the aether is moving around the earth carrying the planets with it, or the earth is spinning on its axis. The most likely model is that the aether is rotating around the earth as calculations show that if it did not, it would rapidly collapse upon itself.

Stephen Hawking, take note—or Phillip Johnson, for that matter.

Bowden appeared as one of the interviewed experts in *Eternal Productions'* creationist video *A Question of Origins* (2004), along with apocalyptic boosters Chuck Missler and Dave Hunt, the ICR fossil point man Duane Gish, and Richard Milton for sundry Commentary. As advertised at *morethanwords.net*: "This video *exposes* the fallacies and complete ignorance of the theory of evolution to the point that **you will marvel** that the world still accepts and defends a theory that modern science has proved to be false." I marveled more at their pseudoscience inclusive witness list.

Actually, Duane Gish (1998) had felt comfortable enough with Bowden's reasoning skills to pen a short Foreword to Bowden's fourth book, *True Science Agrees with the Bible*, showing more gumption than Johnson by at least vaguely acknowledging that "Bowden's position on a few subjects may be controversial"—which may be one of the grander understatements in a venue not widely known for timidity, as well as being a flourish of conflict avoidance that reminds me of that old gallows humor quip: "Apart from that, Mrs. Lincoln, how did you like the play?"

Such tactical acceptance of *some* of what Bowden may say puts Johnson in the same scholarly boat not only with Duane Gish and *Eternal Productions*, but also with YEC Paul Taylor (1995, 34-35, 53, 90-94,

97-99) who busily mined Bowden and Bouw without recognition of their geocentrism, and YEC Scott Huse (1997, 136-138) who sauntered down the same path as Johnson by relying on Bowden to doubt the authenticity of “Java Man.” Huse may have been literally following Johnson here, since Huse had a tendency to borrow other people’s scholarship without acknowledging the source, such as Huse’s liberal vacuuming of Luther Sunderland seen in Note 171 of **Chapter 2** in Downard (2004, 178). Huse’s bibliography also included an unused *Creation Science Movement* pamphlet by Bowden on “Decrease in the Speed of Light (Its Evidence for Creation),” Huse (1997, 209).

Now at this point the epistemologically finicky observer can hardly resist asking some impertinent questions. Anyone capable of believing in this day and age that the earth doesn’t revolve around the sun would appear to be *really good* at rearranging the facts of nature to fit a preconceived (and scientifically untenable) conclusion, never mind how much documentation they may drizzle around it. That the motivation for that belief happens to be theological is actually of no consequence—the problem is that it is a really dumb idea, whatever the source. And so, shouldn’t anyone be just a tad skeptical about accepting at face value *anything* coming from someone who can think that way, and be all the more inspired to check out whatever documentation might be offered as maybe being too good to be true? Don’t trust, and *definitely* verify, to paraphrase Ronald Reagan. Or is *no* idea too hair-brained to trip the skeptic alarm?

And what if some enterprising science teacher, armed with the shield of Justice Scalia’s *Edwards v. Aguillard* dissent, decide to offer some of Bowden’s geocentric arguments in their homage to open inquiry? Who exactly is to say they shouldn’t be able to do that, and on what possible grounds? If Ellwanger was reasonable enough to draft the 1980s Balanced Treatment legislation, or Bowden insightful enough to uncover the soft underbelly of human evolution in a way professional paleontologists have not, or Willis adequately informed to frame science education logic for the state of Kansas in 1999, why shouldn’t educators take a peek at the rest of their views? Doesn’t everybody get to play? Fair’s fair, isn’t it?

All of which lends some irony to Dennis Petersen (2010) affirming the sound character of his Young Earth creationism (“True science will not contradict the clear teachings of the Bible”) and offering the discarded theories of the past as historical precedent for tossing out the falsified theory of evolution, examples such as “The geocentric theory of astronomy.” He should take that up with Willis, Ellwanger, Bouw and Bowden.

Not that the sailing is all that clear for those creationists who do take a whack at their geocentric partners in the creationist subculture. As Lerner (1994, 4) remarked: “one side makes the young-earthers look ridiculous; the other side warns them of looking hellfire.” In the case of Faulkner (2001b-c) assailing Hall and Bouw at *AiG*, it is the spectacle of seeing someone who believes in the primacy of Biblical interpretation (overriding all physical evidence not deemed concordant with it) slamming into somebody who thinks *exactly the same way*, having to suddenly turn all evidence-based in order to reject the claims of their geocentric rivals, and risk sounding like the dreaded Old Earth Creationists by how liberal and figurative they can be when interpreting the scripture regarding the fixity of the Earth (such as *Psalms 105*, as though this could be relevant to a science subject in the first place). At one point Faulkner (2001c) complained (with considerable unintended irony) how “Bouw fails to apply the same rigorous standards that he applies to the heliocentric theory to his own pet model,” as though YEC defenders weren’t loaded to the gunnels with their own weighty double standards.

The realization that there could be serious geocentrists in the 21st century brought to mind Charles Wycliffe Goodwin (1860, 210) commenting on 19th century British education in the *Essays and Reviews*: “The school-books of the present day, while they teach the child that the earth moves, yet assure him that it is a little less than six thousand years old, and that it was made in six days,” but that “This phase may now be considered past, and although school-books probably continue to teach much as they did, no well-instructed person now doubts the great antiquity of the earth any more than its motion.” Spoke

to soon, Chuck!

1.7 Section 4: The Sense (and Nonsense) of the Senate—The Santorum Amendment as catspaw

Amid the “No Child Left Behind” initiative of President Bush, on 14 June 2001 the U.S. Senate approved a reauthorization of the 1965 Elementary and Secondary Education Act (ESEA). Buried in the Senate bill was a short amendment championed by Sen. Rick Santorum of Pennsylvania reflecting language buffed by Phillip Johnson, so carefully worded that even the liberal Senator Edward Kennedy (1932-2009) thought it just fine and the eight Republicans who opposed it did so only because they saw the whole measure as but more unwarranted federal intrusion on local control of education, Holden (2001c) and Witham (2001).

Here was the Scalia freedom of inquiry *carte blanche* bearing fruit:

It is the sense of the Senate that: (1) good science education should prepare students to distinguish the data or testable theories of science from philosophical or religious claims that are made in the name of science; and (2) where biological evolution is taught, the curriculum should help students to understand why this subject generates so much continuing controversy, and should prepare the students to be informed participants in public discussions regarding the subject. *NCSE (2002)*.

Knowing the history of who had been making such overtures over the years and how pliable such terms as “data” and “testable theories” could be when applied out in the *Kulturkampf* hinterlands legislative and academic backers of Intelligent Design seldom frequented, science watchers took note, like Robert Park (2001) frowning briefly at the *American Physical Society*. A further hint about the special perspective of some of the legislators might have been another “sense of the Senate” clause tucked in the draft, one advocating Bible teaching in public schools that identified the Bible as “the best selling, most widely read, and most influential book in history,” *US Senate (2001)*. Because the House version of the bill contained no such sentiments there was intervention time before a compromise was drafted, Fletcher (2002), Palevitz (2002) and *NCSE (2002a)*.

A protest letter by dozens of science organization presidents offered in Lamphere *et al.* (2001) did not faze John Boehner and Steve Chabot backing the Santorum Amendment in the House, but after some rewording to render it less evolution-centric, the Santorum grenade was packed off to the Siberia of the “Joint Explanatory Statement of the Committee of Conference,” where this “Sense of the Senate” factoid relating to the legislative history of the bill carried no actual force of law:

The conferees recognize that a quality science education should prepare students to distinguish the data and testable theories of science from religious or philosophical claims that are made in the name of science. Where topics are taught that may generate controversy (such as biological evolution), the curriculum should help students to understand the full range of scientific views that exist, why such topics may generate controversy, and how scientific discoveries can profoundly affect society. *NCSE (2002)*.

Pigliucci (2002a) lamented the time lost from the “foolish complacency” of evolutionists in not attending to the rise of ID lobbying efforts like the Santorum Amendment, but saw a positive sign in Alters & Alters (2001) *Defending Evolution* aimed at both students and teachers. Though whatever policy tweaks taking place in science education policy from the evolutionary side down still had to deal with the reality on the ground, where conservative politics and religious concerns were still planting fresh mines to step on.

Popular media coverage of the subject floated around these issues, of course, and exhibited all the

limitations of non-scientists trying to grapple with the core challenge of the Santorum Amendment—namely, the legitimization of ID as science through political fiat. *CNN's* old *Crossfire* series was a case in point, *CNN* (2002). In May 2002 liberal Paul Begala and guest Barry Lynn of *Americans United for the Separation of Church and State* squared off against conservative cohost Tucker Carlson and guest Ken Connor of the *Family Research Council* (soon to leave the *FRC* to direct his lawyer skills toward promoting conservative cultural values at his own “Center for a Just Society” in 2004).

Connor no doubt believed it when he said “evolutionary theory is supported by very weak scientific foundation” but neither Begala nor Lynn were quick enough on the factual draw to hit home effective replies within the back-and-forth framework of the format, such as the philosophical derailment Carlson pulled when he complained that Lynn sounded too certain on facts like our genetic similarity to chimpanzees because evolution was only “a theory” that had yet to be “proved.” Clearly, remedial science education on the fly was no more practical on *Crossfire* in 2002 than it was on PBS’s *News Hour* in 1998 (per P-E back in section 1.3).

However symbolic and nonbinding the Santorum Amendment may have appeared, Meilke (2001), Branch (2002a) and Pigiucci (2002a) all spotted how this was being received by antievolutionists. While *Answers in Genesis* got the facts straighter for a change and saw its omission from the final law as a defeat for creationist education goals, Matthews (2002), most *Kulturkampf* antievolutionists were not so observant. Sen. Sam Brownback of Kansas believed it vindicated the efforts of the 1999 Kansas School Board (Willis’ Big Bang free baby). Phyllis Schlafly (2002) thought the law now mandated the Santorum language and citizens in New Mexico used it as justification for intelligent design to be taught in schools.

The Puget Sound turned into a major source of mulch for all this fertility. Phillip Johnson (2001e) made no mention of his role in drafting the specific Santorum language as he sang its praises, while *Discovery Institute* (2001b) played the Santorum Amendment as a great stride forward, now that Congress had “voiced its support for teaching ‘the full range of scientific views that exist’ about evolution. That includes both scientific criticisms of natural selection and random mutation as the mechanism for evolution as well as scientific alternatives to Darwinism such as intelligent design theory.” Thereby bypassing the fact that at no time had the Santorum language ever specified the range of those “scientific views” (or defined standards by which such things could to be determined) let alone explicitly include Intelligent Design among them.

That the *Discovery Institute* and its followers read the matter that way was plain enough, which only fulfilled the expectations of ID’s critics like the *NCSE* who saw it as the camel’s nose poking under the tent. Though whether it would be a one hump ID dromedary only, as posed by Santorum & Petri (2002) in their Senate remarks (Thomas Petri of Wisconsin also served on the *DI* board at the time) and John West (2002a) for the *WorldNetDaily* audience, or a two hump Bactrian species that would saunter on past the arbitrary corral of ID to “teach the controversy” more broadly via Kent Hovind or *Answers in Genesis* was again a distinction that never occluded the highly focused *DI* periscope.

As for camels passing through needles, the *DI*’s Chapman & DeWolf (2002, 3-4) threaded ahead with legalist dexterity: “While it does not have the ‘force of law,’ it might be said to have the ‘effect of law,’” they declared, for although “the Santorum statement does not legally *mandate* an even-handed approach to the teaching of evolution, or penalize failure to do so, it does provide a clear call to states to follow its policy direction in adopting science standards.” Stephen Meyer (2002) employed this parsing when he insisted it “has the effect of law,” and in the Ohio affair (to be discussed shortly) he repeated this in his Columbus debate with Ken Miller. Miller refuted that on the spot with a search of his laptop copy of the final legislation, Miller (2002b), prompting *Discovery Institute* (2002d) to berate him for “moonlighting as a legal scholar and political scientist” along with his refusal to recognize the apparent sagacity of their interpretation of the Santorum clause. Clem Boyd (2002) accepted the *DI* version at *Focus on the Family*, and Boehner & Chabot (2002) weighed in for their Ohio constituents with a letter to the Ohio Department of Education that firmly declared “the Santorum language is now part of the

law.”

These faulty signals flitting along the *Kulturkampf* grapevine brought “grief and discord” to a small rural town in Montana when Rev. Curtis Brickley enthusiastically lobbied the Darby school board in 2004 to include Intelligent Design under the blithe impression that the Santorum Amendment had legislated it, Evans & Branch (2004b) and Victoria Clark (2004). While the state’s legal advisors were vigorously shaking their heads “no” and large numbers of students walked out of class to protest the pro-ID “objective origins” policy, board supporters of ID channeled *Discovery Institute* talking points and flirted with legal advice from the *Alliance Defense Fund* (founded by Bill Bright of *Campus Crusade for Christ*, D. James Kennedy of *Coral Ridge Ministries*, and James Dobson of *Focus on the Family* to defend conservative Christian values).

Mindful of how much the board’s windmill-tilting was liable to cost the community in the end, the main ID proponents on the Darby board were not reelected (though not before they had approved a new creationism-friendly superintendent who was expressing doubts about carbon dating). That September, Brickley spoke at the *Intelligent Design Network, New Mexico Division* (2004) symposium on “Darwin, Design and Democracy V: Science Converges on Design – from Cosmology to Paleontology to Biology” where he supplied yet another measure of what distance actually separated ID interests from conservative theology with a talk on “Presupposing Naturalism: Atheism, Agnosticism and Theistic Evolution?” that warned how “theistic evolution denies a rational basis for belief in God and a basis for our faith in the resurrection of Jesus Christ.”

Such were the fruits ripening on the Santorum Amendment tree as the ID movement grew increasingly disconnected from the details educators might be throwing at them, legal as well as scientific. To see why that was happening institutionally in a movement featuring so many otherwise bright and articulate advocates, it is useful to step back a bit and follow some of Phillip Johnson’s comments during this period concerning one particular topic.

1.7 Section 5: Applied Intelligent Design II—How to *GetEquipped* in Pennsylvania

Signaling perhaps the belief that their ID wave was quickly cresting to swamp evolutionary dogma once and for all, Johnson had begun a “Weekly Wedge Update” at the *Access Research Network* to chronicle relevant episodes—the “wedge” metaphor relating to the most current of his books, Johnson (2000a) on *The Wedge of Truth: Splitting the Foundations of Naturalism*, as well as the Wedge campaign metaphor at the *Discovery Institute*.

Mindful of every media account of their activities, the 7 May 2001 *Weekly Wedge* installment, Johnson (2001b), alerted followers to a *CNN* (2001) broadcast:

The big news this week was the CNN telecast overnight on May 3, on their CNN Newsroom Series show that is used in many public and private school classrooms.

The 7-minute segment (see transcript) featured the exposure of the peppered moth story and the faked Haeckel embryo drawings by Jonathan Wells, in his book *Icons of Evolution*. The segment began with an interview with Joe Baker, a high school senior who has become skeptical of evolution and wants his school board to put labels in the textbooks warning students about the errors.

Tom Flannery (2001) also riffed off the CNN interview in a piece at the *Amy Foundation* (an organization devoted to presenting biblical truth to the secular world), noting that although “Baker admits that he is a Christian who believes in the biblical account of creation,” he was being falsely accused of “trying to sneak creationism into the public schools through the back door.” Baker only wanted “the evidence they have to be taught honestly,” quoted Flannery. And thus it must be so. Though whether Flannery was all that keen on recognizing evidence that fell outside his *Kulturkampf*

framework is debatable: for *World Net Daily* a decade later (ironically enough, an April 1st posting) Flannery (2012) staked out a very wide perimeter cordoning off what he deemed to be leftist pseudoscience: evolution, abortion, embryonic stem cell research, global warming, birth control and green energy.

The presumption that Wells' claims about textbook inaccuracies were in fact up to snuff may take a back seat at this point to focus on Joe Baker, and how the ID conception of evidence related to what Baker was doing in the Pennridge school district. Two weeks later Johnson (2001c) took up the Baker case again:

Since the publication of his splendid book *Icons of Evolution*, Jonathan Wells has emerged as a popular lecturer. So far this month he has spoken to a large audience at the University of Washington, addressed a workshop on family issues in Washington, D.C., and lectured on the "icons" at Pennridge, Pennsylvania, where a high school senior named Joe Baker has been getting national media attention for challenging the errors in the biology textbooks.

Baker's proficiency at repeating the arguments of *Icons* rendered him a mere appendage as Wells' argument made headway—nothing else was offered about what young Baker thought on other points, or whether there were broader cultural factors going on behind the ID postcard. As if rearranging the same talking points somehow upped the wattage of the ID searchlight, Johnson returned to Joe Baker for his third (and final) time on 11 July, ending up sounding not unlike the creationists of *Edwards v. Aguillard* complaining of their not being given a fair chance at bat:

Today the Pennsylvania state House Education Committee is holding hearings on proposed new science education standards governing (among other things) the teaching of evolution. For the most part the standards are conventional. Students are to learn about natural selection, mutation and recombination, fossil evidence, the progression from early hominids to modern humans, and so on. Nothing to upset Darwinists in that. But there are two specific provisions to which Darwinist science educators are fiercely opposed.

First, teachers and students are supposed to Analyze evidence of fossil records, similarities in body structures, embryological studies and DNA studies that support or do not support the theory of evolution. Second, they are to Analyze the impact of new scientific facts on the theory of evolution. Either of these might open the way for critical thinking about evolution, rather than the desired passive acceptance of whatever is in the textbooks. After all, an intrepid Pennsylvania high school student named Joe Baker has been publicizing the textbook errors described by Jonathan Wells in his book *Icons of Evolution*. [See the *Wedge Weekly Update* for May 7, 2001.] Much of the public is suspicious of the expansive claims that are made for the creative power of natural selection, and the scientific materialists are pulling out all the stops to make sure that those suspicions are never given a fair hearing. *Johnson (2001d)*.

Here Baker appeared as a supportive chip in what had now turned into a legislative game, where the stakes were much higher.

A comparison by the *Pittsburgh Post-Gazette* (2000) of the 1998 Pennsylvania standards with the proposed revisions showed a lot of tactical terminological insertions, especially "analyze"—as in "Analyze the impact of new scientific facts on the theory of evolution." Though references to radioactive dating and plate tectonics remained in place, another of the insertions was to "Analyze the

Big Bang Theory's use of gravitation and nuclear reaction to explain a possible origin of the universe," *Pennsylvania State Board of Education* (2000), suggesting the revisionists were homing in on selected hot spot target phrases rather than comprehensively weeding out troublesome naturalistic sore spots.

Which only highlighted the unspoken methodological concern: what would be the *content* of all that analyzing? Supporters of the changes were not always reticent about what *they* had in mind, as covered by Pamela Winnick (2000a) for the *Post-Gazette*. Diane Snyder, vice president of the Butler Area school board declared: "Our demographics are very Christian-oriented. Why shouldn't we teach creationism in addition to evolution?" And Dennis Wert, chairman of the *Creation Science Fellowship* in Pittsburgh: "All we're trying to do is raise legitimate problems with the standard model [of evolution] and suggest that the dating of the Earth is not as precise as [evolutionists] believe." Not that Wert (1998) would stop at just dating the Earth: there's the age of the Universe, and the reality of the Flood, and any aspect of human history that failed to reflect his YEC beliefs, while were about it.

Even Phillip Johnson could have known what was going on here, though, since his own reference to the "proposed new science education standards" contained a link to exactly one resource: *GetEquipped.org*. Johnson did not elaborate on what pot of gold was to be found at that Internet rainbow (perhaps he never bothered to look)—nor did Winnick in her article when she mentioned the website when interviewing its operator, Steve Sobek. As of 2014 this was a dead address, but fortunately my practice of making hard copies of website content allows me to share with you the "Purpose Statement" of *GetEquipped* (2001a), including their dire tidings about certain (conspicuously unnamed) opponents:

Welcome to GetEquipped.org. This web site is an outreach of the Pittsburgh-North chapter of Citizens for Excellence in Education, which is based in Gibsonia, PA. Our site will help you find tons of information and resources that will help you protect and nurture the minds of your children in a society that is often hostile to a Christian world view.

Whether your child attends public school, private school, or is homeschooled, there is something here for you. Though we sell nothing ourselves, this site has links to all of your favorite Christian sites (like Focus on the Family), and important education sites where books, audiotapes, and videos can be ordered.

The information that you find here will not only help you with your children, but will also equip you to make a positive impact on our society. Whether you're writing a newspaper editorial, conversing with elected representatives or school personnel, these resources will help you better articulate your position.

Several national organizations, as well as the national news media, try to intimidate Christians and dissuade them from exercising their rights as citizens of this country. These groups sometimes claim to be champions of tolerance and ardent proponents of diversity, but in practice they only tolerate those who agree with them and viciously attack those with oppositional points of view. When other minority groups, including other religious groups, express a concern, they appropriately support their right to be heard and they encourage sensitively and tolerance. On the other hand, when a Christian expresses a concern, say with curricula in a public school, immediately the compassion and tolerance disappears. Rather than rationally discussing the issues, they try to intimidate the Christian into silently acquiescing. An alert goes out to warn the community that, "Christians are trying to force their agenda on public schools." It seems that non-Christian views are welcome are welcome, but Christians are treated like lepers or nonentities, that must be shunned and silenced. Although the courts have ruled that public schools are to be neutral toward religious views, some believe that

neutrality is best exercised with rapid animosity and they insist that Christian views have no place in the public square.

Don't allow these groups to silence you. Christians are citizens and taxpayers like everyone else. If you click on "[Links to the best Christian web sites](#)," you will find links to legal organizations like the [Rutherford Institute](#) and [Home School Legal Defense Organization](#). Don't hesitate to seek legal advice [*sic*] from them. These groups are more than willing to defend religious liberties protected by our constitution.

Christians are also humans and make mistakes. Sometimes they have good ideas and sometimes bad. But school officials should have an open ear to your concerns and should not pre-judge you because of your religious background. Your suggestions should be heard and evaluated like those of anyone else—they should be judged by the legitimacy of your arguments.

Always be courteous and respectful of school officials, politicians and even those who disagree with you. Be well informed. Know the facts. Never allow yourself to be dragged down to the level of those who try to oppose you with methods like ridicule and personal attacks. Treat others as you would like them to treat you. Behave in a way that allows others to see the love of Christ in you.

I hope that these suggestions and the resources on this web site will be helpful in that endeavor. Now go back to our [home page](#) and start getting equipped.

Disclaimer—GetEquipped.org does not necessarily agree with every position held by many organizations that can be accessed through this site.

A bundle of mixed messages were conveyed in this extraordinary and revealing polemic. By referring to "other religious groups" only in relation to their opponents and reserving the adjective "Christian" exclusively for their audience, *GetEquipped* was playing into the false impression that their views represented Christianity (an attitude that crops up in school board and legislative battles where Christian opponents of creationism or Intelligent Design are accused of being non-Christian or even atheists). At the same time, the seemingly generous appeal to "Know the facts" presupposed that any of the resources they recommended were actually conveying facts to be known—and which their own disclaimer disingenuously belied (though *GetEquipped* was too vague on content to tell what positions they might agree with or not)—or whether those resources could prepare antievolutionist followers to accept any judgment on "the legitimacy of your arguments" that disagreed with them.

"Creationists will need to help equip science teachers who are not aware of the evidence against evolution," *GetEquipped* (2001b), and should the revised standards pass, "we will need to contribute books and video to public school teachers so they are aware of the evidence against macro-evolution." *GetEquipped* suggested Wells' new *Icons of Evolution*, showing not the slightest inclination to critically analyze its content (or link to any resources likely to do that). *Icons* may have been just a fortuitous nod to the flexing design movement, since Steve Sobek (1998) showed no awareness of any ID resources when proposing "Students should be familiar with the scientific rebuttals to evolutionary arguments in the fields of paleontology, homology, vestigial organs, embryology, thermodynamics, and molecular biology." The inclusion of the YEC favorite of *thermodynamics* was not unexpected given that "informative web sites that deal with origins are [www.icr.org](#) and [www.AnswersInGenesis.org](#)" (no *Discovery Institute!*) and Sobek's "Suggested reading" consisted solely of Jonathan Sarfati's *Refuting Evolution*, with *Of Pandas and People* the single "Suggested supplemental text to help educators" in their task.

The fully creationist roots of Sobek's thinking governed the 2001 website Phillip Johnson was implicitly recommending. A whole page was devoted to David Menton of the *Missouri Association for Creation*, *GetEquipped* (2001c). Menton (1991) on "Teaching Origins in Public Schools" disingenuously

recommended “that Biblical creation not be taught in our public schools” for two reasons: that supernatural interventions are “outside the scope of the scientific method” and evolution is “the only explanation for origins currently being seriously considered within the ‘mainstream’ of science.” Menton didn’t note a third more telling reason: that *Edwards v. Aguillard* rendered that approach *unconstitutional*. But Menton went on to repeat the varied creationist arguments against evolution, meaning that any “critical analysis” of the subject relying on him for guidance would only be teaching creationism by subterfuge. Menton’s own article linked directly to the 1998 *Creation Science* website (still operating at www.bestbiblescience.org) where one can find further YEC nuggets like Jason Browning (1997) offering a single page of “World-wide Flood Evidence” without a source to check in sight. Menton’s oft-cited *Kulturkampf* take on *Inherit the Wind* was on the *GetEquipped* list as well (noted back in section 1.6), along with pieces on “What about those ape-men?” and “Dating methods and the age of the earth.” A blatant scholarly warning flag regarding reliability would be the Menton (1991; 1994) articles *GetEquipped* explicitly offered, spooling out the monotonous creationist litany of authority misquotes rather than honestly addressing the relevant data directly, including the hoary Gould “trade secret of paleontology” statement (covered back in section 1.3).

With blithe disregard for the headaches they were proposing for dedicated teachers striving to present factual topics with as little classroom fireworks as possible, a sidebar on the Menton page at *GetEquipped* (2001c) advised:

This page provides links to several short articles that are very well written and understandable to the average parent. You should print these and mail them to your child’s science or history teacher. Don’t mail them all at once. Perhaps one a week would increase the chances of them being read. Be patient with teachers. They’ve probably been indoctrinated in evolution ever since their youth. They never knew [sic] that cogent, scientific rebuttles [sic] existed. It will take time for them to realize that evolution is a false religion that has been disguised as a scientific theory. Send us an e-mail to let us know what you think of Dr. Menton’s articles.

But would any amount of time be enough for a science or history teacher to explain to a parent reprinting Menton’s articles (or any of the material at the creationist sites) what was wrong with it? The very fact that such information was circulating (and continues to) meant that believers in it weren’t going to be giving up on it. That’s what “critical analysis” means in the real world of antievolutionary thinking, which Intelligent Design promoters like Phillip Johnson do not get to because they don’t get to it. A happy link to operations like *GetEquipped* is sufficient to exhaust their scholarly curiosity.

And lest we forget, there is *GetEquipped*’s parent organization to consider. Founded by Robert Simonds (noted in section 1.6 above regarding the Vista, California case and the idea that Creation Science could be taught in public schools despite *Edwards v. Aguillard*), it was carefully named to sound as innocuous as possible for outsiders, and remains active as *Citizens for Excellence in Education* (2013), albeit with its sails well-stowed to avoid disclosing what resources might be mailed off to educators these days. They have still earned their *Kulturkampf* cred at *Conservapedia* (2013j) though: “a conservative religious organization dedicated to restoring classroom prayer and public school bible reading, banishing sex education, and stopping ‘the homosexual/lesbian invasion’ in public education.”

All of which does put something of a “you’ve got to be kidding” damper on Michael Behe’s letter of recommendation Johnson (2001d) quoted: “I strongly support the proposed changes in the Pennsylvania Department of Education science and technology education standards,” which Behe insisted simply injected a healthy skepticism into teaching about evolution. Behe concluded:

I realize that you are receiving much mail opposed to the proposed changes, from

people concerned that the revised standards are a “smokescreen for creationism.” In my opinion that is patently untrue. But even if it were true, opposing critical thinking in science class is a dangerous, emotional overreaction that threatens to throw the baby out with the bath water. One simply must not discourage students from asking questions simply because they might ask the “wrong” questions, or draw the “wrong” conclusions. Science can tolerate wrong thinking; it can’t tolerate putting limits on thinking.

But this wasn’t a proposal to loosen up debate at some science convention or technical journal, but whether the standards for what constituted sound evidence were to be relaxed for the purpose of *school teaching*, opening up a very squirmy worm can whereby students and teachers would be invited to thrash out controversies in lieu of learning about the current state of scientific thinking—or rather, issues certain interest groups deemed to be controversies, on their terms, with their “evidence” (courtesy of the likes of creationists Menton and Sarfati, however much Behe might not have wanted to ponder where Johnson’s *Weekly Wedge* fossil link actually led to).

After opposition from science educators, and despite Michael Behe throwing his weight into the ring, the State Board of Education rejected the revisions, Winnick (2001a-b) and PADNET (2001).

Just what could have gone wrong with the proposal of the Pennsylvania chapter of *Citizens for Excellence in Education* was noted by Judith Weis (2001), President of the *American Institute for Biological Sciences*, in an editorial for their *BioScience* journal: “Controversy over Evolution Is Not Scientific—It’s Political.” It was evolution alone that was singled out for this obligation to have evidence presented for and against it, after all, and Weis raised this counterpoint: “Imagine if physicists had to give evidence ‘for and against the theory of gravity!’” For Weis, the choice of target and the terminology of the Pennsylvania proposal represented “merely a code phrase that opens the door to teaching creationism.”

However much a conventional scientist protested that there *was* no substantive evidence against evolution or gravity (or heliocentrism, while we’re about it) in the way the ideologue might desire it, the opponent can always take this as further confirmation of how the evolutionists or gravity-mongers (or moving earthers) had barricaded the doors against open-minded inquiry. Aren’t they afraid to teach the controversy, or hear those many questions that Behe would (from a safe distance) encourage them to ask, right or wrong, with no concern about the potentially flaring tempers as the school system is ordered to pay attention to issues guaranteed to inflame just about everybody’s religious or scientific sensibilities?

This is exactly the tack Phillip Johnson (2003) took at Chuck Colson’s *Breakpoint* (the venue again showing the *Kulturkampf* frame for who the target audience was in all this), affirming apropos evolution education “that the public’s suspicions are soundly based upon fact” which he framed exclusively within the ID talking points (micro-evolution only, fossil record inadequacy, and embryological misrepresentations) resting squarely on the foundation of *Icons of Evolution*. Johnson concluded with this populist appeal:

We know that in any fair and open-minded consideration, the Darwinian alternative to design will collapse of its own inadequacies. The Darwinists know that too, and that is why they fought so desperately against the Santorum amendment.

The public can be sure that we in the intelligent design movement are right, and the Darwinists are wrong, just by thinking about why the Darwinists are afraid to allow the real issues to be discussed even in the controlled environment of a science classroom. If the Darwinists had the evidence on their side, they would not be so fearful of what will happen if students learn to distinguish philosophical claims that are made in the name

of science from testable theories. They would not fear allowing students to ask questions and become informed participants in public discussions regarding the theory of evolution. The party that has the evidence to back its case is never afraid of a fair hearing. That is why the Darwinists are afraid of freedom, and we are not.

As someone who has been told by Johnson what it is I am supposed to have in my own head as a belief (at the Whitworth Creation Week), I get a tittle bilious at Johnson's willingness to define both sides of a dispute on his terms. But behind this assertion lay an obvious parallel that Johnson refused to consider: couldn't the creationists back in *Edwards v. Aguillard* have said exactly the same thing regarding the strength of their argument—in fact, they did, as we saw in section 1.6 above, and remain so, such as Jon Dougherty (2001) editorially wondering “What do evolutionists fear about creationism?” at *WorldNetDaily*, or Henry Morris (2002, 3) sounding so much like Phillip Johnson in divining what motivates evolutionists: “Why are they so fearful of creation science? The obvious answer is that they are men and women of strong faith in evolution, but that it is a religious faith, not able to overcome the waves on the sea of scientific facts that support creation.”

And, just as in the Balanced Treatment case twenty years earlier, no one in the defense of the Santorum amendment approach ever explained what the standards of evidence and proof were to be, apart from apparently the *a priori* rejection of natural explanations for natural phenomena. The Pennsylvania antievolution lobbyists were still drawing on the parochial presentations of Young Earth Creationists, only this time poking them through the Intelligent Design curtain first, where proponents like Johnson and Behe could do their public relations for them, restricting everything to the *Darwin's Black Box* and *Icons* talking points. Like John Robbins fifteen years earlier regarding the Bible-free veneer on the Louisiana Balanced Treatment Act (section 1.6 above), Carl Wieland (2002b) at *AiG* had similar misgivings about the refreshed ID approach, since it “would preclude public expression of support” for Biblical authority (the only thing that really matters in the end for doctrinal creationists).

In the *Breakpoint* piece Johnson let slip that he knew full well just who might be shuffling around behind the drapery, regarding his advice that school boards and administrators should stick *precisely* to the language of the Santorum amendment (which he had drafted):

Well-meaning citizens sometimes think that this language does not go far enough, and so they insist on petitioning the authorities to give classroom time to some theory other than evolution. This is a mistake, because whatever they say just gives biased journalists something to ridicule and distort.

Whatever could he be referring to here if not the strenuous lobbying of *Young Earth Creationism*? Simultaneously acknowledging the 800-lb. gorilla in the room, while wanting them to stay back in the shadows and listen to their betters without making a fuss—not because what they might be saying wasn't true or maybe even a bit scientifically questionable, but only that “biased journalists” might “ridicule and distort” their beliefs.

At this moment Johnson was operating fully in the new disingenuous ID mode, as a *de facto* stalking horse for Young Earth Creationism, where you can be an opponent of evolution without having to *abandon* your YEC beliefs—just stick to our script, hunker low, and everything will be just fine. No matter what you say or believe or do, no one at the *Discovery Institute* is ever going to even mention it, let alone criticize you for it. Just make sure you do it behind the scenes.

1.7 Section 6: Creationism 2.0—State antievolution efforts and the traveling Kent Hovind fun house

The folks behind the curtain were certainly keeping busy, trying their best to phrase their efforts in a way to avoid sounding like what they actually believed, but because they seemed slow to follow

Johnson's (sorry, *Santorum's*) cue sheet, some mighty curious products slipped through the folds as they translated the intent of the Santorum language into what they thought it meant.

Georgia's **House Bill 391** saddled teachers with a sprawling requirement to "make distinctions between philosophical materialism and authentic science and to include unanswered questions and unsolved problems," Applegate & Alcott (2001). Montana's **House Bill 588** introduced by Rep. Joe Balyeat (2001) echoed the old Arkansas Balanced Treatment model by trying to ensure the "objectivity of science education" by a randomly selected six-member committee approving "a full range of factual information supporting the competing theories of origin" without identifying what those might be or (a much bigger omission) without ever suggesting by example what evidence would qualify or fail for inclusion. Balyeat's bill sank even in a legislature dominated by Republicans, and Montana term limits meant Balyeat had to move on to fresh pastures. **Cowgirl** (2012) followed some of Balyeat's subsequent *Kulturkampf* activities, from heading the Montana Tea Party to warning Christians that if they failed to become more politically active, "not only will hell prevail against us, but abortionists and homosexuals and humanists and pornographers and tin-horn TV networks as well." Somehow Bozeman has still managed to survive as the dark clouds of doom gather.

Other antievolution proponents during this period knew more of what they wanted—sort of. Denise Matsumoto, member of the Hawaii board of education, introduced a resolution calling for the teaching of alternatives to evolution, but creationism was the sole example she appeared to be aware of and a wave of opposition from the science community and even some in the religious community brought her effort to an abrupt halt, Pyle (2000) and Kua (2001b). Catherina Hurlburt (2001) at *Concerned Women for America* (the organization founded by End Times believers Tim and Beverly LaHaye) put a deliriously congenial spin on this affair by selectively quoting one snippet from Kua (2001a): how a local biology teacher believed "students would benefit from hearing the debate." Hurlburt might have showed more caution given the title of the *Honolulu Star-Bulletin* article: "Educators: Creation theory not scientific; Creationism can be taught, but not in science class, teachers and scientists say." At no point had the article suggested any of the teachers or scientists thought Intelligent Design had scientific merit, and the teacher in question was only affirming an obvious scholarly skill: that it was good pedagogy to encourage students to investigate issues (which I confirmed in a June 2014 email exchange).

This would not be Hurlburt's sole wrestle with logic or grasp of facts. Hurlburt (2001) had unapologetically defended the 1999 Kansas antievolution standards ("It *did not ban* evolution from the classroom, which media still erroneously report today.") without examining any of its explicit content or noting the Big Bang or Willis matters. More recently, one of Hurlburt's newsletters surfaced as an illustrative example of logical fallacy in an online writing course at Kennesaw State University in Georgia. Based on a single instance of a Swedish boy having declared (back in 1955!) his purely hypothetical disinclination to marry a girl if he ever got her pregnant, Hurlburt had conclusion jumped all the way to the belief that this "proves Sweden's governmental system causes all children to reject traditional morality," *Kennesaw* (2011). One swallow can truly a summer make, at least in *Kulturkampf* land.

Meanwhile in Michigan, Rep. Robert Gosselin *et al.* (2001) offered **House Bill 4382** that would require every instance of *evolution, how species change through time and natural selection* in science courses to be offset with an explanation of "THE THEORY THAT LIFE IS THE RESULT OF THE PURPOSEFUL, INTELLIGENT DESIGN OF A CREATOR." That Gosselin had a fairly specific CREATOR in mind is suggested by his political career, where his campaign website continues to remind potential voters of his efforts to have "IN GOD WE TRUST" and "TEN COMMANDMENTS" posted on the Lansing capitol, Gosselin (2013). The man liked CAPS, what can I say.

More idiosyncratically, in Louisiana, African-American Democrat Rep. Sharon Broome offered a resolution to condemn Darwin and evolution for supposedly proposing "a hierarchy of superior and inferior races" that with Hitler resulted in "the annihilation of millions of purportedly racially inferior

individuals” and wanted textbooks discussing evolution to carry a warning disclaimer. This mirrored beliefs increasingly common in the African-American community (especially in church circles), but also likely reflected the campfire horror stories about Darwin and racist eugenics circulating in the creationist subculture (Broome’s alma mater was Regent University, founded by Pat Robertson, a character seldom far from frenetic hyperbole). This spawned the usual range of snap reactions: agreement from some (though by no means all) religious and conservative postings, arriving eventually on the scope of Glenn Beck (2001), while more uniform condemnation emanated from evolutionists and secularists. Fewer took this as an opportunity to explore what was a more complex history than the creationist cartoon version, such as Morgan (2001), Wertheim (2001) or Conley (2001). Meanwhile, when Broome’s proposal was trimmed to a general statement opposing racism, *Answers in Genesis* (2001a) complained this was just “watered down to protect Darwin.”

Thus Broome’s venture was not occurring in a cultural or political vacuum. At the same time, Republican Rep. Tony Perkins was trying to get the Louisiana legislature to prohibit the state and parishes from “knowingly printing or distributing material that contains information that is false or fraudulent,” Applegate *et al.* (2003), by which he meant evolution. Perkins (a graduate of Jerry Falwell’s Liberty University) has steadfastly supported Young Earth Creationism, first in the *Louisiana Family Forum* he set up in 1999, and later at his *Family Research Council*, hailing Ken Ham as “the world’s leading authority on Biblical accuracy,” Perkins (2013m), and was much impressed with Ham’s *Creation Museum* in Kentucky, Ham (2008b).

The language of Perkins’ Louisiana bill was similar to one offered in Arkansas that year by Rep. Jim Holt, except the Arkansas version spilled over into some honesty by actually specifying what he thought constituted instances of scientific “fraud”—which included *Archaeopteryx*, fossil hominids and the horse sequence. The *Archaeopteryx* fraud charge stemmed from the early 1980s and was entirely spurious but was still percolating in antievolution circles (Steve Meyer even tried to trot it out at the 1998 Whitworth “Creation Week” conference).

Holt channeled Wells’ by then unavoidable *Icons of Evolution* for his biological claims, but mined his examples of supposedly faulty fossil evidence for human evolution from another source altogether: the *cartoon panels* of Jack Chick (1972b), the notorious creationist “Big Daddy?” pamphlet, whose over-the-top vagaries are examined by Alston (2001) along with two other Chick comics (one from 1976 recounted how Soviet agents tried to prevent Christians from finding the remains of Noah’s Ark). But Holt’s **House Bill 2548** also carried buckets of YEC water by specifying evidence challenging the age of the Earth, and the man Holt drew on for that was Florida evangelist Kent Hovind, Elsberry (2001a); there also used to be a juicy point by point breakdown of Hovind’s influence on Holt’s Arkansas Bill available at *Analysis of Kent Hovind* (2002c) but that website had disappeared as of 2014.

As it happened, Hovind was the authority *Chick* had relied on for his human evolution claims, which Rep. Holt then presented secondarily. Holt then drew this incestuous short circuit even tighter by calling Hovind to Arkansas to testify for his bill as an *expert witness*.

But expert in what? Self-styled as “Dr. Dino,” Hovind is hands down one of the great charlatans of modern creationism. Although regularly spoken of as *Dr. Hovind* by his admirers, his degrees in Christian Education came from an unaccredited Baptist correspondence school, *Patriot University* (now *Patriot Bible University*), currently operating from a suburban tract home-scale facility in Colorado. Incidentally, Hovind (2007b, 79-80) did not note the unaccredited nature of *Patriot U.* in his breezy summary of his scientifically slim academic qualifications. As their undergraduate “Bible and Science” instruction and graduate course on the “Biblical Basis of Modern Science” are based “on the extensive research of Henry Morris,” *Patriot University* (2004a-b), it was the full YEC of Henry Morris he had in mind, and not any watered down Intelligent Design talking points supplied by the *Discovery Institute*. And, like Robert Simonds’ *Citizens for Excellence in Education* from the Pennsylvania case, Hovind (1999e; 2003a) also beat the drum on the legality of teaching creationism in public schools,

Hovind's doctoral dissertation is a particularly curious creature, as Karen Bartelt (2000b) or Nathan Dickey (2014) discovered. Unlike real dissertations, which are matters of public record and not to be changed once filed, Hovind had been tinkering and padding it up much like a summer school term paper. Mindful of her experience in obtaining her own chemistry Ph.D., proofreading her husband's in entomology, and evaluating student's chemistry dissertations, Bartelt saw little in common with Hovind's work. Lacking a title, references or footnotes, Hovind also frequently seemed reluctant to consult a dictionary:

Misspellings are rampant. A careful, knowledgeable editor/advisor would never allow a student to get away with misspelling "Cananan", "Voltair", "Nyles Eldredge", Madelyn Murray "O'Hare" (just like the airport), "Shintu" (the Japanese religion), "peersuaded", "centrifical" (force!!!), "aught" (to!), "disippated", "immerged" (from the slime), or "epic" (as in geological!). "It's" is used as a possessive pronoun. There are several non sentences. This is especially interesting since the course catalog of PU offers courses like "Refresher English" and "Mechanics of Composition".

This phenomenon may account for Hovind's reluctance to engage in written exchanges with critics, preferring stage debates or telephone chats instead. To what extent Rep. Holt was aware of any such discouraging words before channeling Hovind's arguments is unclear. His legislative biography at Jim Holt (2002) listed his occupation as "Counselor/Chaplain," suggesting he encountered Hovind somewhere in the conservative church subculture, where his views were just gaining traction.

I first bumped into Hovind's world in 1997 (when he was still all but unknown on the antievolutionary landscape compared to Henry Morris or Duane Gish) after my brother asked me to evaluate one of Hovind's videotape lectures that a creationist friend of his was burbling over. Grassroots followers were gobbling up Hovind, such as conservative Wisconsin creationist Teno Groppi (2002a-c) distilling Hovind's claims as gospel ("Dr. Hovind is the **BEST** Creation Scientist I've ever heard") alongside praise for the *Constitution Party*. By the time Rep. Holt entered the picture Hovind's pieces were attracting attention higher up on the *Kulturkampf* grapevine, with Chuck Missler (1999) highlighting five of Hovind's audio talks on *The Missler Report* (varied clips of Missler and Hovind expounding on topics from atheism to the threat of the "Illuminati" still to be found on *YouTube*), and archconservative Phyllis Schlafly (2001a-b) recommending "Dr." Hovind's creationism lectures at the *Eagle Forum*.

The fawning of Holt, Groppi, Missler and Schlafly notwithstanding, Hovind was quickly proving so factually embarrassing that some of his fellow Young Earth colleagues were getting antsy. Hovind (1999a-e) swallowed practically everything generated by the YEC misinformation factory, including items like the Lunar Dust myth and the Paluxy River man tracks (more on those in due course) that turned out to be too radioactive to keep defending and so were being abandoned at *ICR* and *AiG* just as Hovind was picking them up. Wieland *et al.* (2002) and Sarfati & Wieland (2002) slammed Hovind in the name of "Maintaining Creationist Integrity" at *Answers in Genesis*, while the *Bible Answer Man* Hank Hanegraaff (2002) felt obliged to defend conservative Christian orthodoxy by accusing Hovind of weak scriptural exegesis and persistent duplicity (such as advocating strained Bible Code predictions only to deny it later).

Undeterred by his creationist compatriots dumping on him, Hovind (2003a) plowed on to add more to his list of textbook "lies," such as "The pangaea theory that's taught in your books never existed," and "The sun did not form before the earth like the textbook says." About the only limit to his vaulting pseudoscience credulity was his summary rejection of biblical geocentrism, Hovind (2003d). Which can only make one wonder what an extraordinary challenge Arkansas' science teachers would have faced had Jim Holt's legislation not died in committee and they be compelled to call attention to the textbook

“lies” doled out in Hovind’s seminars.

It should not be forgotten that more than just scientific buffoonery was being trotted out with Kent Hovind and the Chick pamphlets. Theologically and politically, they fall on the extreme political fringe of the antievolution spectrum, taking the doctrines of Henry Morris’s conservative creationism totally seriously, just being blunter about it. In this frame evolution is no mere scientific theory, but a sinister player on a distinctly eschatological stage. Lecturing on “The Dangers of Evolution,” Hovind (2003a) warned, “Satan protects his evolutionary theory with a vengeance,” and while expositing on “The Age of the Earth,” Hovind (2006) illustrated the special YEC historical filter for ostensibly scientific topics when explaining evolution “didn’t start with Charlie Darwin; it started with Satan in the Garden of Eden. He wants you to think you can become a god.” Which view he linked then to Mormonism, another offending heresy in his far-ranging and ever-vigilant *Kulturkampf* crosshairs.

The universe of Kent Hovind is a swirling mélange of eccentricity teetering on the brink of conspiratorial disaster. Meyers (2000) commented on his dietary fanaticism: take B-17 laetrile to cure your cancer but eschew white bread lest it kill you. But it’s hard to top Hovind’s belly-flopping expectation that the New World Order was about to initiate a scheme to bring the world’s population down to only *half a billion* by May 5, 2000, a date conjoining Marx’s birthday and the anniversary of Israel’s statehood, Huxley (1999).

This would all be merely laughable if Hovind didn’t also patrol more troubling territory. *Southern Poverty Law Center* (2001b) noted Hovind’s association with the anti-Semitism of Des Griffin, whose Fourth Reich of the Rich argued “international communism” was the scheme whereby “the Rothschilds and Rockefellers are out to rule the world,” Griffin (2002). Griffin’s Emissary Publications is still highlighting the Hovind family’s DVDs (including Hovind’s nephew Chad Hovind’s “godonomics” theories) along with an audio cassette of the notorious anti-Semitic forgery, *The Protocols of Zion*, rubbing shoulders with the regurgitated Jewish conspiracy theories of Henry Ford and more recent Holocaust revisionism, Griffin (2013a-c).

One can also get the Joseph McCarthy jitters every time Hovind mentions the ACLU, which (as he almost invariably reminded listeners) stands for either the “American Communist Lawyers Union” or the “Anti-Christian Lawyers Union,” Hovind (1996; 1999e-f, 2003b-d; 2006). Though in one instance from my preliminary research notes (an early 1990s squib warning of the New World Order “Illuminati” from a long-vanished URL, home1.gte.net/dmadh/hovind2.htm) Hovind referred to “the ACLU (*The American Communist Lawyers Association, no, I’m sorry, it’s the Anti-Christian Lawyers Association*)”—thus showing some difficulty at that time differentiating “A” from “U” in the organization’s acronym.

Hovind’s *Creation Science Evangelism* involved gallivanting around North America lecturing on the perils of evolution and even constructing a little “Dinosaur Adventure Land” theme park in Florida, brushing him up against the law on several occasions, from circumventing zoning regulations in his rural neighborhood to dismissed assault charges, Greg Martinez (2004). Hovind and his wife hit a much bigger speed bump in 2007, though, after it became clear (even to people at the neighboring creationist Pensacola Christian College) that he was able to afford his sundry hobbies by creative accounting, passing his employees off as “missionaries” and paying them in cash, which forsaking of that “rendering unto Caesar” income withholding tax thing earned him a \$3 million tab leading to a 10-year Federal vacation and his wife a 2-year reservation, the legal details covered extensively by Peter Reilly (2012; 2013a-e; 2014a-f; 2015a-j) for *Forbes* magazine, leaving his son Eric to keep the family bonfires lit in the meantime. Incidentally, Chad Hovind (2011) disapproved of uncle Kent’s tax evasion and Black Helicopter conspiracy theories, but did not express an opinion on Kent’s Creation Science assertions.

SABBSA (2004b) expressed qualms over Hovind’s brushes with the law from the get-go, potentially doing harm to their creationism movement “founded on our belief in God and hard science.” SABBSA (2013h) thought Hovind might consider following the advice of the *Creation Science Hall of Fame*’s Nick Lally and give up the “nonsense” of the “alternative tax theories” he had embraced. The SABBSA did not

consider whether any of the creationist arguments of Dr. Hovind might likewise fall into the “nonsense” category, but that would be looking into the YEC mirror too closely for genuine “critical analysis.”

World Net Daily (2009; 2012a) covered the affair even more gingerly, admiring Hovind’s evangelical zeal and reputation for slaying evolution, while tiptoeing around his acknowledged connections to the tax resistance subculture (Hovind likened the IRS repeatedly to a foreign power like Japan or Mexico, and thus of no jurisdictional relevance to a humble man of God such as himself). The *WND* reportage did not press too deeply into the amazing world of Hovindian litigation, though, especially whether the quality of people Dr. Dino was listening to on tax statutes might have accounted for how he ended up walking into his current pickle eyes wide open.

One of Hovind’s advisors interviewed by *WND* in 2009 was “IRS watchdog” Lindsey Springer (“head of Tulsa-based Bondage Breakers Ministries”) whose novel ideas about tax theory soon landed him in prison in 2010, *Accounting Web* (2010). Another pundit quoted by *WND* early in 2012, the “attorney” Paul J. Hansen of Omaha, Nebraska, was a bust beaver in the antigovernment movement there, ignoring building code violations on his properties and pretentiously signing legal documents as “Lawyer/Counsel without the United States,” Kelly (2011). Later in 2012, Hansen’s homespun legal practice (including retailing a “Do-It-Yourself eviction kit” and a “Common Law Lien kit”) drew the interest of the Nebraska Supreme Court Commission on Unauthorized Practice of Law, *Nebraska Reports* (2013). The commission cited Hansen’s written admission (“including grammatical, typographical, and spelling errors”—a quality matching up quite well with Hovind, appropriately enough) that he had never actually obtained a license to practice law (in Nebraska or anywhere else), and after Hansen (so clearly above that sort of thing as someone not “of” the United States) did not even bother to appear in court, a cease and desist injunction was issued.

WND was equally insouciant when it came to the *AiG* criticism of Hovind’s claims, which they mentioned but never illustrated by specific example, thereby perhaps sparing some of *WND*’s more sensitive readers any “say it ain’t so” cognitive dissonance moments should they be among the many creationists who believe things like the Lunar Dust story or the Paluxy mantracks too. Like the *SABBSA*, what *WND* definitely did not consider was a grimmer alternative: whether *any* of Hovind’s arguments (or *AiG*’s by extension) could pass logical muster outside the sturdy creationist barricade.

During this period, discomfited Hovind supporters rallied a web-linking international phalanx of 18,210 signatories (including a few double-posters and the many first-name only or purely pseudonymous entries) to a petition directed initially at President Bush but spilling ineffectually over into the Obama administration, *Free Hovind* (2014). Expressions of righteous indignation over Hovind’s persecuted innocence and wrongful imprisonment as a “political prisoner” wrestled with a strong leavening of anti-tax absolutism—mixed with contributors who couldn’t quite let go of their CAPS LOCK, along with stray providential rationalizing like that of James Trotter: “GOD has put him there to reach someone inside.”

A more common sentiment was that of Belgian evangelist David Merlevede (perhaps failing to calibrate his scale of outrage first against such real world specters as North Korean prison camps or Syrian chemical weapon stockpiles) when he characterized Hovind’s incarceration as “a major offense to humanity!” There was also a curious dearth of prominent *creationists* on the Hovind petition, apart from Jerry Bergman: “I do not agree with Kent on many things but his case is clearly unjust!” Indeed, as *World Net Daily* (2009) noted, “Hovind has received virtually no public support from prominent evangelical leaders.”

Not that *Free Hovind* was particularly discerning when it came to vetting who did sign their petition. **Tax Evasion Is Fun** tripped over a typo in their parody: “‘Dr.’ Hovind should be allowed to willfully evade and subvert tax law, because dinosaurs were on the ark. The difference between the honorific ‘Doctor’ and ‘felon’, is that you actually eared [*sic*: likely “earned”] the title ‘felon’.” **Charles Darwin** made it on board criticizing Hovind’s “use of the Bible for scientific reference” along with his “fake doctorate” and

tax evasion, as did **Thomas Huxley** in similar vein. **Rot in Jail Kent, Kent Is GUILTY, He Is Guilty As Can Be, SATAN, Atheist, Jesus Christ, Julius Caesar, Adolf Hitler, Joseph Stalin, Osama Bin Laden** and many other trolls opted for more graphic or still ruder brevity. Milder entries in this category would include several professing to be from **Kent Hovind** himself, one announcing he'd turned gay while in stir and requesting some "NUBILE YOUNG MEN!" be sent to his cell, shortly after **Ted Haggard** had advised: "Don't drop the soap Kent, it's gonna hurt and I know hot it feels!" All were still on the petition in January 2014. They may only have been avatars of the same pissed critic, of course (though the same could therefore be said of some of the remaining pro-Hovind 18,000 or so too, especially the spurt of dozens of gibberish signatories with single entry names like **Qhcllcma** and **Wjgbfnmc** that all landed on May 23, 2012).

The evolutionary gang at *The Panda's Thumb* website couldn't resist chop licking over the scofflaw Hovind, P. Z. Myers (2006g,l), which may be compared to the stone wall at Hovind-friendly Chick Publications. Chick (2004) had an enthusiastic page on the career and evangelical testimony of "Dr." Hovind, including his "doctoral dissertation" (but with no mention of Patriot University). My check in January 2014 found they had made no changes at all to thus puffery, neither regarding the questionable provenance of Hovind's degrees, nor his more recent involuntary change of residence away from Pensacola (embarking on a travelogue as he has been shunted from facilities in Florida, Georgia, South Carolina, Colorado and New Hampshire)—thus offering yet another graphic measure of how evolutionists and creationists can differ when it comes to digesting juicy information.

The Free Kent Hovind campaign has chugged along since, including supporter videos and web postings (such as by anti-LGBT Pastor James David Manning and geocentrist Rudy Davis), Reilly (2015a-d, j), along with fierce *Twitter* defenses I observed firsthand, painting Dr. Dino's plight as one of conspiratorial anti-Christian persecution (though ironically, while Hovind fuels that trope, Kent's own son Eric doesn't claim dad's troubles related to anything other than imprudent tax evasion), Gettys (2015) and Reilly (2015c). "What is so annoying about Hovind's attitude is that the tax law is generally quite friendly to religion, much to the frustration of our friends at the [Freedom From Religion Foundation](#) who recently lost their case against the parsonage exclusion in the Seventh Circuit," Reilly (2014e), adding (to none of my surprise), "Hovind seems to be incapable of ever admitting that he was wrong about anything." Ironically, Hovind's lasting legacy might well be to prompt a progressive rethink of America's cumbersome criminal justice and penitentiary system, Reilly (2015f).

In March 2015 Hovind hit the courts again over misuse of mailing privileges in pursuit of extricating his property from a government lien, prompting a fury of umbrage from his supporters, reported by Heather Clark (2015) for *Christian News* with only a tangential note that "Dr." Hovind's pre-conviction activities consisted of being "an evolutionary foe" (no allusion to or defense of any of its content) and being equally vague concerning the worldview swirling around Hovind and his supporters. Various online commentators were not so aloof, however, reflecting the intense rightwing *Kulturkampf* character of Hovind's demographic, one *Christian News* poster revealing "Kent Hovind is in jail because he exposed the illuminati and ruffled many evolutionist feathers including infiltrators at a Christian college." Another opined:

Kent is in jail because of his position, status, and unwillingness to follow Satan's agenda. The IRS has been the attack dog of the socialist party for some time now. Protecting their own, but destroying anyone that opposes them. The only way to free Kent is to abolish the IRS and dig up their records.

Yet another warned of impending persecution: "Don't think it isn't coming for other Christians. I have seen Christian preachers arrested in Michigan for preaching against Islam, for praying at an abortion center. Look what Obama did to Nakoula Bassely Nakoula. It's here." Nakoula being a

convicted check-kiting fraud whose side hobby of making a virulent anti-Muslim video sparked riots in Egypt, Pakistan and elsewhere leaving over 50 dead, and whose use of concealed identities along the way landed him in jail on a parole violation, *CNN* (2012) and Nagourney & Kovaleski (2012).

Tortucan shell-girding manifested also as another *Christian News* poster warned against heeding the independent reportage of “false accusers” like Peter Reilly. Such is the insular self-reinforcing worldview of those prone to admire Dr. Hovind.

Fortunately for the Hovindistas praying for his liberation, Hovind had a holdout on the jury during a second court go-round, its foreman Don Camacho, whose *Kulturkampf* jury nullification mindset inspired him to stonewall the other eleven ready to convict Dr. Dino on the mere facts, resulting in charges being dropped on this technicality and so putting Hovind on a fast track to liberation in the summer, Reilly (2015i).

Not surprisingly, Hovind resumed his lecturing after his release, including to high school audiences, Mehta (2015v)—though one Ohio school brought him in as part of a class on extremism (they had Klan and neo-Nazis before). Whatever the justification, it is unlikely Hovind did not seek to make the most of his time on the stage to promote his notions as legitimate science.

1.7 Section 7: Taking “Critical Analysis” Seriously—How about starting with Joe Baker

Which brings us back to the “intrepid” Joe Baker. Was he but a fresh recruit to the ID army, emboldened by his jolting exposure to the revelations of *Icons of Evolution*, as Johnson’s *Weekly Wedge* trifecta so consistently pictured him?

We may start with that “media attention” Johnson alluded to but did not dive into himself, such as the local coverage of Baker by Kozleski (2000a-c) and Paul Carpenter (2001a-b) predating Johnson’s first *Weekly Wedge* posting on him. Baker became a creationist with a mission at summer camp several years before the spotlight hit him in 2000, after hearing a creationist lecture and later reading *The Evolution of a Creationist* by “the most humble Creationist, Dr. Jobe Martin,” as Baker (2002a) later characterized it—Martin being the dentist whose threadbare scholarship was previously noted in sections 1.3 and 1.6. What Baker meant by the “facts of science” apropos the teaching of evolution became pretty clear when Kozleski quoted Baker that he didn’t want “creationism or evolution in science classrooms, but since they’re not going to do that, all I’ve asked them is to give out” Kent Hovind’s polemic *Are You Being Brainwashed? Propaganda in Science Textbooks*, which offered the customary creationist objections to evolution along with the recalcitrance of mainstream science when it came to recognizing the evident truth of Young Earth Creationist geology.

Hovind may well have been the unidentified creationist Baker heard at camp, but in any case, quite like Rep. Holt in Arkansas, Joe was so impressed with Hovind’s stuff that he invited him to speak at his school during a seminar Baker organized on *The Origin of Kinds*. Initially Allentown College of St. Francis de Sales biology professor Joseph Colosi was set to talk about evolution also, but Colosi evidently declined to participate in lending cache to Hovind once it became clear that this was going to become a debate, prompting Baker to start sounding a lot like Johnson’s *Breakpoint* spin: “The fact that no one will debate him and yet will criticize creation science tells me there is no evidence for evolution and a great ignorance to science—that evolution is just another religion.”

Hovind drew an enthusiastic hall-filling crowd of 1200 according to Shallwani (2001) and Z. Meyer (2001a). A local pharmaceutical scientist who attended Hovind’s talk, Matthew Kostura, found it “the most egregious misrepresentation of evolutionary biology I have ever seen,” Kozleski (2000c), which having studied Hovind’s bouncy scattershot lecture style, I can venture was probably the case. Petto *et al.* (1999) reported the same regarding one of Hovind’s public lecture sets from that period (Philadelphia, May 7-8, 1999). I can find no reference to how big a draw Jonathan Wells got for comparison when he subsequently diverted his lecture schedule to speak at Pennridge on May 7, 2001.

What is clear from the record is that neither Wells’ *Icons of Evolution* nor any other ID resource

played the slightest part in the genesis of Baker's antievolutionism. That the Hovind groupie Baker would expeditiously latch onto *Icons of Evolution* as a serendipitous supplement to *Are You Being Brainwashed?* was hardly unexpected—Hovind (2007a) eventually incorporated Wells (along with Behe's *Darwin's Black Box*) into the revised version of *Are You Being Brainwashed?* as well. In no time Baker was passing out leaflets drawing on *Icons*, dropping references to Behe's "irreducible complexity" in interviews, and obtaining legal representation from that veteran of the Balanced Treatment Act battles, the *Rutherford Institute*, Paul Carpenter (2001a), *Charisma News* (2001), *Maranatha Christian Journal* (2001) and Z. Meyer (2001b).

The intervention of the *Rutherford Institute* rang some bells for one local. In a letter to the Allentown *Morning Call*, Donna Mason (2001) noted that Baker was following the Kent Hovind training manual for antievolution activism *to the letter*: lobby school board meetings for warning stickers, "demand your books be accurate," use the media to the max, and get legal help from the *Rutherford Institute*. The *Rutherford Institute* played their part in turn by helping Baker sue the Pennridge School District in federal court over their right to regulate such activity at school, *Associated Press* (2001) and Lester (2001). The school considered itself within its rights as Baker's fliers libeled their biology teacher and undermined student confidence in their science courses, and the suit (which included another student, Maryn Teed, who anticipated feeling intimidated over the prospect that she might want to distribute some unspecified fliers in future) was eventually dismissed for lack of legal standing under Pennsylvania law, J. McLaughlin (2003). Incidentally, a January 2014 search of the *Rutherford Institute's* website showed no hits for the Joe Baker episode in their archives.

But how great a feather was it in Wells' credibility cap, that someone like Baker who could swallow Kent Hovind and Jobe Martin whole was taking him and Behe seriously too?

While doubtless a bundle of confident certainty, Baker was not the sharpest tool when it came to details, betraying the pitfalls of his oh-so parasitical scholarship at every turn. In a written debate with Matthew Kostura, Baker (2001) showed he was up to the Hovind standard by misspelling Ernst "Hackles" and the "Miller/Uray" experiment in his secondary repetition of Wells' arguments, and referring to Ernst "Mayer" a bit later. One gaff from Baker (2000) that particularly jumped out for me was his invoking Canadian creationist Robert Lee (1981) as "an expert in the field of dating" (he wasn't). The pretentiously titled *Anthropological Journal of Canada* Lee wrote for was no serious professional publication, but a very small self-printed pamphlet Lee and his brother churned out for a few years, and I suspect Baker mined this particular lump of Fool's Gold secondarily from one of his creationist books rather than reading the very obscure item on his own.

At the same time Johnson was fitting Baker for the buttoned-down Wellsian ID tailored look, Baker (2000; 2001; 2002c) openly sported all the gaudier regalia of Flood Geology, from a young universe created to look "mature" to dinosaurs cavorting in the Bible. The brief *CNN* interview that so delighted Johnson displayed none of the patronizing temper of Baker's YEC convictions (as well as the arrogant exuberance of being nineteen, which having been there myself I can recognize), but it flashed on February 1, 2001 against his online debating foil Kostura:

I have come to one conclusion either you don't understand what a fact is, or you are very confused between a fact and the interpretation of a fact. There is a difference you know. I have trouble believing that you, as a professional scientist, would suggest that the age of the earth, the long ages given to the layers of the geologic column, and radiometric dating methods are facts.

"I am amazed at your ignorance to data," Baker (2001) harrumphed, and proceed to shovel a pile of YEC dating factoids vacuumed from the likes of Henry Morris (1985) with, I am sure, the same intemperate absence of caution he showed while skimming from *Icons of Evolution*. Actually, non-

paleontologist Kostura had made a small mistake the day before when he wrote “mammals are not found with the earliest dinosaurs” apropos the geological column failing as “a record of the flood” (as it happens, the earliest mammals and dinosaurs were contemporaries)—but it is relevant that budding evangelist Baker (relying too obviously on his defective creationist resources) knew too little about the fossil record to have caught him on it.

It would have been far more instructive to have seen how Phillip Johnson would propose to engage the “intrepid” Mr. Baker on these points, to see how Johnson’s rejection of naturalistic assumptions would fare against someone who *really* rejected naturalistic assumptions, but that was one *Weekly Wedge Update* never to see the light of day.

What Baker has done since all the high school fuss tells a further tale. After graduation, Baker attended the Montana Wilderness School of the Bible, an institution less likely to challenge his worldview than his time at Penridge, since there the Bible was deemed inerrant and totally authoritative, *Montana Wilderness School* (2001a-b; 2013a-d). At *MWSB* one would gain “a new awareness of the environment from a Biblical perspective,” along with warnings about cults and spiritual warfare via a study of “angels, Satan, and demonology.” Around forty students a year on average have attended *MWSB* since 1980, mainly from the US and Canada; a quartet of recent alumni testimonials at their website made no mention of creationism as a take-home memory (several reflected on how they had been shaken from their “prideful” tendencies, however), but a course on Scientific Creationism remains on their schedule.

The 2001 *MWSB* syllabus (dating from around the time Baker would have been attending and theoretically learning) mentioned that the Scientific Creationism “course will teach a Biblical view of creation and show that it will stand up to science as long as we are careful to separate that which is fact from that which is theory”—a curious turn of phrase (“face”) that suggests they may have been relying on Hank Hanegraaff’s 1998 antievolution tome, *The Face that Demonstrates the Farce of Evolution*, for some of their argument.

Hanegraaff is enamored of mnemonic tools that translate into some rather clunky acronyms (such as **EQUIP** that defines their “goals and objectives”: **E**ssentials, **Q**uestions, **U**ser-friendly, **I**ntegrity, **P**ara-church). **FACE** stood for some of the chapter titles of his book: **F**ossil Follies; **A**pe-Men Fiction, **F**raud; **C**hance; **E**mpirical Science. In a review of a shorter revised version called *Fatal Flaws: What Evolutionists Don’t Want You to Know*, Buratovich (2006) noted the obvious: “Hanegraaff’s book contains a great dependence on secondary sources, which leads to a perpetuation of common errors found in the works of many recent creationists.” Hanegraaff (1998a) just carried on the process over more pages, meaning if it were part of their curriculum at the time Baker attended he would have had still more inaccurate information on hand to sweep into his already bulging bag of creationist misunderstanding.

For a time the “Joe Baker Creation Science E-mail List” was part of the links alongside *Answers in Genesis* and the *ICR* at the creationist *InfoQuest** (2002a-b) website (gone in the Internet wind as of 2014, it may have been shut down due to its resemblance to a similarly named operation lacking the asterisk). In 2002 *InfoQuest** had connection links to a bevy of organizations on the growing *Kulturkampf* landscape: David Barton’s *Wallbuilders*, Bryan Fischer’s *American Family Association*, Hank Hanegraaff’s *Christian Research Institute*, Pat Robertson and Jay Sekulow’s *American Center for Law and Justice*, and “The Only Truly Judeo-Christian U.S.A. Political Party,” the *Constitution Party*. By then it was not easy to scratch the average antievolution website and not turn up *Kulturkampf* links much like these.

Like his hero Hovind, Baker (2002b) embarked on a pretty active evangelical campaign (traveling even to China), lecturing when requested on topics including “Joe’s most advanced seminar” on “How to teach an objective science curriculum” in which I am sure he presented all the information he had accumulated secondarily, including how “Intelligent Design is being censored from public school education.” In the course of the early research on this book I contacted Baker by email in September

2002, by which time he was living in Alaska, and (again like his mentor Hovind) he called me one day to discuss the evolution issue (or rather, morality and naturalism issues, since by then I was rather far ahead of him on the technical science front). Baker's activities prompted Hovind (2003a) to return the favor, recommending listeners contact Baker for help in setting "up meetings, on getting kids fired up to do something in their local school." Which might very well include handing out more Hovind literature or lecture DVDs.

While Baker's antievolutionism has not mellowed in the decade since, it occupies a less prominent spot in his current endeavors—still speaking on evangelical topics and evolution as warranted, but running a very Pro-Life Christian-themed t-shirt company in Colorado Springs, which started out as *Live Offensively* in 2005 but was later renamed *Love Offensively*. Steven Wells (2008) mentioned some "Live Offensively" t-shirts were being sold at a Christian rock festival he was reporting on concerning the popularity of a Philadelphia band representing a new breed of anarcho-Christianity roaring away at the opposite pole from the conservative sentiments of the *Live Offensively* booth: "Philadelphia is the hub of a radical, right-on, righteous Christianity a million miles removed from the leading brand peddled by the gun-gripping, gay-bashing, mega-church-attending Christbots of the religious right."

As for the Intelligent Design movement that launched Joe Baker's 2001 notoriety, it was revealing that not a single ID resource ended up on the list of "Allies" at his *Love Offensively* website, Baker (2013)—but Kent Hovind's *Creation Science Evangelism* was still there, along with the *Montana Wilderness School of the Bible*, and Luke Randall's *Was Darwin right?* website. Randall is a British Young Earth Creationist Baker has been associated with since the early 21st century. We'll be bumping into *Was Darwin right?* again late in this section, though, concerning Michael Behe and the Dover trial.

The record then is pretty clear: creationism, in its full-blown YEC modality, was at the core of how Joe Baker perceived the world ever since his teenage campfire epiphany. And no one trying to use him as an ID sock puppet paid the slightest attention to what the young man actually believed, or whether (ala Tom Willis' geocentric open-mindedness) there might have been anything less than exemplary about how Baker thought he was reasoning about the factual evidence floating by his gaze.

A final irony concerns Baker's 2013 *Love Offensively* product line. While shirts with scriptural or Pro-Life themes are abundant, his catalog offered only one on antievolution: identified as "Darwin is Dead" if you wanted to order one, it was a minimalist uncaptioned shirt showing the Darwin tetrapod (late of the culture wars noted in section 1.6 earlier) plopped upside down on its back—the perfect Christmas gift for Phillip Johnson or Christopher Lane, don't you think?

1.7 Section 8: Applied Intelligent Design III—John Calvert and William Harris come to Ohio

Concurrent with the Pennsylvania flap, several antievolutionary gears were meshing over in Ohio as the Ohio Board of Education (OBE) began a mandated review of their K-12 school proficiency standards. The *Columbus Dispatch* devoted lead space to explaining some of the protagonists and issues, Lore (2000) and Mahoney (2000), and familiar sticking point issues surfaced in early editorials and letters. For example, U.S. District Judge James Graham (2000) reflected one of the commonest antievolution tropes (and one that would figure in the subsequent debate) by focusing on the mystery of "the origin of life" rather than the many billions of years of evidently natural changes cropping up in life after that. Graham also expressed concern over "the problem of stereotyping" whereby design proponents "are often miscast as biblical literalists" and how "emotionalism" led "to ridicule, name-calling and exaggerated claims instead of reassured debate" without once venturing an opinion on the skills or expertise of any of the people actually getting involved in the Ohio case. Ohio State University evolutionary ecology professor W. Mitchell Masters (2000) did remind Graham, though, that the ideas of Phillip Johnson and Michael Behe that the jurist had invoked in an earlier editorial did not "have evolutionists perplexed."

As the OBE got into action local reportage kept pace: Mangels & Stephens (2002a-c), Stephens &

Mangels (2002a-b), Stephens (2002a-d), Candisky (2002a-c) and Sidoti (2002a-b). Gura (2002) covered the case for *Nature*, while an unfavorable review by Charlesworth (2002) of the new *No Free Lunch* ID volume by Dembski (2002a) earned a riposte from Dembski (2002h). The more ambivalent *Christian Science Monitor* (2002) did not deny the solidity of evolutionary science in reporting on the Ohio case but kept the door propped open for “discussion, questions, and possible alternatives.” Vicki Johnson (2006) later supplied a concise summary of the Ohio affair for *The Educational Forum*.

As for how many “biblical literalists” there actually were on hand as the OBE commenced its work, this was the state that geocentrist Gerardus Bouw called home, and the region had a creationist star right next door: Ken Ham’s *Answers in Genesis* (having grown in only a few years to a \$5.5 million annual budget) was embarking on its Creation Museum near the Cincinnati-Northern Kentucky International Airport, Kinney (2000). The *Young Earth Creationist Club* followed the OBE’s initial efforts from their perspective, where two creationist chemists testified on supposed fossil and radiometric dating problems, Paul McDorman (2000) and Joseph Guthrie (2000).

Several OBE members explicitly favored offering “alternatives” to evolution into the standards, such as lawyer Michael Cochran and University of Akron marketing professor Deborah Owens-Fink, ebulliently looking forward to being on “the cutting edge” of the impending ID science revolution by making Ohio the first state to include it in education—though the strongest opponent of Intelligent Design on the board, retired business executive Martha Wise, identified herself as a creationist but felt religious faith on the role of God in creation had no place in science class, Clines (2002a). Moreover, a survey of science and technology issues conducted by the *Ohio Academy of Science* had identified no interest in either downplaying evolution instruction or giving Intelligent Design a leg up, Geis (2002), suggesting the OBE was about to embark on a solution in want of a problem.

Industrial chemist Robert Lattimer, director of the Hudson, Ohio chapter of Robert Simonds’ *Citizens for Excellence in Education* (recall that organization’s roll in the Pennsylvania case above), went beyond mere testimony by getting on the OBE writing committee itself. Lattimer was an old hand at griping about textbook inadequacies, such as the multicultural one that drew his scorn a few years earlier for including “too much on how various minorities have been victimized,” while “many caucasians were treated poorly in their history, but you don’t read much of that in the book,” quoted by the *National Coalition Against Censorship* (1996).

Joining them was the *Intelligent Design Network*, founded to defend the 1999 Kansas standards by lawyer John Calvert (licensed in Missouri for practice, though not in Kansas ironically), nutritional biochemist William Harris and zoological illustrator Jody Sjogren (she provided images for Wells’ *Icons of Evolution*), Beem (2002) and *CreationWiki* (2011g). The *Intelligent Design Network* developed three divisions: Calvert and Harris’ parent Kansas operation, an Ohio branch run in 2011 by patent lawyer Roddy Bullock, and the aforementioned (section 1.4 above) New Mexico division shepherded by *Creation Ministries International*-friendly Joseph Renick, who despite considerable effort (and *post hoc* spin) failed to derail New Mexico’s resolutely evolution-friendly science standards, Janofsky (1999), Berman & Thomas (2005) and David E. Thomas (2007).

After the defeat of the 1999 Kansas antievolution standards, Young Earth creationist activist Paul Ackerman embraced the new style of Calvert and company as a welcome tactical development: “the way they are framing the issue is certainly acceptable to the creationist side,” Stephens (2002a). Just how acceptable this was would be shown later when Ackerman was welcomed onboard the Kansas *Intelligent Design Network* as their director.

Given this YEC subculture running not very far below the wave crests in his own organization, as well as the obvious creationist component in the 1999 standards (let alone its geocentric-congenial contributor Willis) the *Intelligent Design Network* was set up to promote, it is of some note that Calvert has paid no attention whatsoever to any of this in the many statements he has made on the subject, such as Calvert (2000; 2001b-c; 2005), Calvert *et al.* (2000; 2001a-b), and Harris & Calvert (2003; 2005).

Nor did Phillip Johnson (2002b) allude to the YEC or Willis factor in a *Weekly Wedge Update* praising Calvert as “one of the friends of freedom” whose yeoman efforts in Kansas were thwarted by the Darwinists employing “their media monopoly and political power to intimidate the people of Kansas.” Instead Johnson held the *Kulturkampf* banner high: “We will fight again, and eventually the leaders of science will learn that the costs of imposing a pseudoscientific materialism on America are too great for them to bear,” and quoted a summary of the developing Ohio case by Calvert extolling in turn the splendid assistance of Bob Lattimer.

The remaining players in Ohio represented a cloud of outside interests conjoined by their common *Kulturkampf* concerns.

Science Excellence For All Ohioans (SEAO) was “a project of the American Family Association,” SEAO (2002a-c; 2003) and Lattimer *et al.* (2002), inspiring the later Sjogren *et al.* (2005) encountered in section 1.3 above concerning Punctuated Equilibrium. SEAO appears to have consisted mainly of Sjogren (who also acted as director of the Ohio wing of the *Intelligent Design Network*), Bob Lattimer, and mechanical engineer Walter L. Starkey.

Information technologist Douglas Rudy was mentioned as director by SEAO (2003), but apart from contributing to Sjogren *et al.* (2005) has left hardly a trace beyond Rudy (2014), a superficial collection of derivative and dated antievolutionary secondary quotes at his *Xenos* religious website aimed at demonstrating how evolution fails to “discredit the Bible.” Starkey ranks only slightly higher, a minor niche antievolutionist of the Richard Milton stripe who eventually got a jab by *The Sensuous Curmudgeon* (2011i) as “Self-Published Genius #11” but been cited only peripherally, such as by David Noebel (2013b), another marginal creationist who listed a 1999 version of Starkey’s self-published Cambrian Explosion book among the slim end references in a rambling piece on “The End of Darwinism” for *The Schwarz Report* but didn’t dwell on him in the main text.

Calvert and the SEAO were the faces of the ID campaign interviewed by Matt Pyeatt (2002) for Brent Bozell’s *Conservative News Service* (later renamed *Cybercast News Service*), reprised in turn at the *American Center for Law and Justice* (Pat Robertson’s legal organization run by Jay Sekulow). But the *Discovery Institute* also got involved. Having defended the 1999 Kansas antievolutionary standards from afar, the *DI* felt ready to dive in feet first to put their mark on Ohio’s K-12 science education, and Dembski’s side of the ID argument was featured by Chuck Colson (2002a) for *Breakpoint*, a posting included secondarily among the pro-ID *Access Research Network* Ohio coverage, *ARN* (2002).

Cheering from the sidelines was Phyllis Schlafly (2002) for the *Eagle Forum*, showing about the same breezy willingness to repeat the claims of *Icons of Evolution* (laced with some creationist quote mining, such as one misrepresented from Colin Patterson and another misattributed to Louis Bounoure, to be covered in due course) than she had when recommending the science lectures of Kent Hovind. Over at *Concerned Women for America*, Tanya Green (2002) reminded their readers that “The backlash was horrendous” in Kansas over the 1999 standards (no mention of the scuttled Big Bang or Willis’ part in that) but singled out John Calvert for promoting “evidence-based science education” there and now in Ohio. On a not unrelated *Kulturkampf* track, Green (2001) also insisted Margaret Sanger somehow had a “Eugenic Plan for Black Americans” despite the many African-American supporters of Planned Parenthood at the time, as Jersild (2001) took pains to remind Green. Green’s concerns may be compared to the general “chaos rhetoric” found at *Concerned Women for America*, Eric C. Miller (2014b).

Five of the nine members of the OBE Standards Committee favored incorporating Intelligent Design, and in January 2001 John Calvert was invited to give a pro-ID talk, though as John Mangels & Scott Stephens (2002a) noted in their coverage for the *Cleveland Plain Dealer*, scientists attending the meeting who wanted to respond to his half hour presentation were denied the opportunity. SEAO (2003) did not allude to that in their self-serving *post hoc* précis of the “Ohio Firestorm of 2002”. Calvert (2001a) was shy on technical detail in his presentation but long on philosophy, and defined the nub of

the matter thus: “There are essentially only two scientific hypotheses about our origins. The Naturalistic and the Design Hypothesis.”

Sound familiar? It should—recall Scalia’s summary of the Creation Science argument fifteen years earlier in *Edwards v. Aguillard*: “There are two and only two scientific explanations for the beginning of life—evolution and creation science.” All Calvert had done was dust off this “It’s Either Us or Them” Two Model creationist approach, where the “Design Hypothesis” can slip under the limbo bar without having to earn its place in the game first through a strong body of empirical findings establishing “Design” on its own merits (though Design advocates definitely don’t see it that way, thinking the likes of Behe and Dembski had already slam-dunked it).

Like Creation Science before them, any inadequacy of naturalistic evolution is taken as *de facto* evidence in favor of the Design alternative (as seen in Scalia’s summary of the *Edwards v. Aguillard* arguments). The road is never allowed to run the other way, though, with any problems in the Design argument being accepted as supporting *evolution*, but then logical consistency has not been one of the salient properties of antievolutionism generally, whether Creation Science or Intelligent Design.

Once more, the nature of what constitutes acceptable “evidence” clouded the ID-is-not-Creationism mantra. Sounding a lot like the Dean Kenyon (1984) Louisiana affidavit trying to wring the Creation out of Creation Science, Calvert (2001a) stressed that the Design “evidence is not ‘creation science’ as defined by the courts. It does not lead to a young earth, a world wide flood or any other religious text or religious account about the origin of life. It derives its authority solely from investigation, observation and analysis per the scientific method.”

Except that Creation Science had consistently said the same thing about the empirical basis of their alternative, and maintained as well that the scientific evidence *does* lead to a young Earth and a global Flood, if only those uniformitarian scientists would give throw off their godless Naturalism blinders and embrace the evident truth of the facts as only they consistently see them. Ohio had plenty of domestic creationists waiting in the wings to bring polonium halos, radiometric dating problems and humans coexisting with dinosaurs to the “science evidence” party in exactly this spirit, such as *Young Earth Creation Club* (2002c), and if Calvert had any doubt about what they would have in mind, he had only to take up reading *Acts & Facts* or any of the many *Answers in Genesis* publications—and then try explaining how he would propose to keep the YEC camp from bringing their evidence to the table too. And no cheating, by using any “Naturalism” in the answer, either.

SEAO (2001) was more comprehensive than Calvert in dodging the many creationist balls ready to be pitched at the restricted ID epistemology batter, parsing “creationism” so generously that even *theistic evolution* got in the mix, but once at the plate *SEAO* promptly threw down the bat and ran back to the dugout:

Intelligent design seeks to avoid these controversies by focusing on scientific, rather than theological, arguments. Intelligent design is a good scientific alternative to evolution, and “creationists” with differing perspectives have found that they can unite under the design banner and present as unified front to the science and education establishment. It has been relatively easy for evolutionists to defeat creation science initiatives in U.S. courts and school boards. The establishment is finding it to be much more difficult to defeat the design hypothesis, which is clearly a viable scientific paradigm, and not a religious concept.

Except of course such a tactic can only seem to work if the Design Hypothesis’ “scientific” argument is tailored never to trouble the sensibilities of all the varied brands of “creationism” that Calvert and *SEAO* are so resolutely claiming ID is not. So it happened that in his recommended revisions to the standards Robert Lattimer (2002) took careful aim at the one instance “in the origins science area that

includes estimated dates for events or processes in the distant past,” namely that unicellular organisms appeared “about 4 billion years ago.” Now this might have been seen as a fine opportunity to specify *more Deep Time* benchmarks in the indicators—tracking the arrival of cyanobacteria (~2.5 Ga) then early nucleated eukaryotes (~2 Ga) and later primitive metazoans (~1 Ga and after), for example. But instead Lattimer argued that “since these estimated times vary greatly” for the first life the text should be revised toward the exceedingly vague: that those organisms arrived “shortly after the time when the earth first became habitable.” Lattimer did not venture by how much or according to whom these “estimated times” supposedly varied, and a February 2002 email enquiry of my own to John Calvert for clarification garnered no reply.

The downplaying of **Deep Time** facts to avoid wrinkling the sensibilities of creationist students or parents was not a feature unique to the Kansas-Ohio climate. As Lerner (2000) noted, the official standards in Mississippi, Tennessee and West Virginia came close to Kansas in reducing mention of an old Earth and universe, but it was also possible to accomplish this from under the radar.

A disgruntled Arkansas science teacher told Wiles (2005) how he had been explicitly “instructed NOT to use hard numbers when telling kids how old rocks are. I am supposed to say that these rocks are VERY VERY OLD ... but I am NOT to say that these Ordovician rocks are thought to be about 300 million years old.” This mandate (which extended to not mentioning “evolution” or even “natural selection”) was done solely to avoid the ire of any creationist parents or students or politicians who might (but hadn’t yet) raised a fuss. (A situation not unique to Arkansas, as I know of a local high school science teacher in my area who currently has to keep geochronology off the table in his classes.)

Wiles discovered the avoidance of evolution was not uncommon in the state, and where objecting to this could be a career-ender for teachers, risking accusations of *atheism* and being reported to the governor (Mike Huckabee at the time, who not only favored creationism being taught in the state’s schools while oblivious to evolution’s being downplayed by their own teachers, he was serving as chair of the Educational Commission of the States). Thus, even though the Arkansas scientific community had successfully blunted a Kansas-style standards revision in 1999, Hobson (2001), such that the state’s official science education guidelines recognized a 4.5-billion-year age for Earth, and measures like Holt’s **House Bill 2548** had flopped in the legislature, the social conditions on the schoolroom floor rendered those victories Pyrrhic.

The disconnect between the legal situation regarding teaching creationism in schools and the *de facto* reality was seen again when local church members in Columbus, Indiana sent a petition with over 1200 student and adult signatures to the Bartholomew Consolidated School Corporation Board requesting a creation science class by offered either as an elective or incorporated into regular instruction, Maschino (2002). Never mind that what they were proposing had been unconstitutional since *Edwards v. Aguillard* (Scalia notwithstanding), the BCSC superintendent said he was considering it. One of the speakers at the board’s meetings stressed that “creation science involves scientific research and is not just about religion,” and a student wanted the course to “be taught by someone who is knowledgeable in the field,” which presumably would not require (or accept) anyone inoculated with the *Discovery Institute’s* aversion to taking on YEC arguments.

Another Indiana example: a student campaign to get YEC content included in their courses at Jefferson High School in Lafayette was supported by a creationist chemistry teacher there (likely Daniel Clark, to be met with again shortly), and coverage of accurate geochronology was not appreciated either, Randak (2001), one student complaining “It is bad enough that you teach the earth is old, you should not be able to attack my evidence that the earth is young.” Calvert is welcome to try “teaching the controversy” on that one.

The issue of chronological sequence meant participants in the OBE discussion were not always using the same playbook. The *Columbus Dispatch* press account by Candisky (2002a) mentioned Ohio State University science education professor “David Haurly, who was on hand to help clarify terminology and

pertinent legal precedent, called evolution and intelligent design different subjects that need not be at odds. 'Evolution is how things change over time—it doesn't say anything about how life got started—and intelligent design is about how life got started,' he said."

But Design advocates were frequently bringing up fossil matters like the Cambrian Explosion occurring long after the origin of life, so however reasonable Haury's distinction was from an evolutionary perspective, this was not quite the position of the actual ID advocates on hand in Ohio. Board member Deborah Owens-Fink (2002) objected that the standards were not so neutral on "origins" as evolution advocates claimed:

The present draft of the Science Standards states this origin connection very specifically. Students are required and tested on their ability to:

"Know that life on earth is thought to have begun as simple, one-celled organisms, about 4 billion years ago."

"Analyze how natural selection, and other evolutionary mechanisms and their consequences provide a scientific explanation for the diversity and unity of all past life forms."

Sounds like origins of life issues to me.

The problem was that nothing in the statement described how that first life had come to be—the "origins" side of things (whether natural or supernatural) operating in Haury's context—only the approximate time of that appearance (a geochronology matter disputed only by YEC ideologues) and the observation of what that first life consisted of (unicellular organisms only). Over in Oklahoma, one vocal supporter of antievolutionist battles over textbook adoption (related to the disclaimer tactic discussed more below) was kindergarten teacher Laura Dobson, who fully reflected this creationist misconception when she matter-of-factly said, "I disagree that single-cell organisms were first," Cooper (1999). Which spirit lives on in creationists like Richard Peachey (2008) at the *Creation Science Association of British Columbia*, doing his darnedest to dismiss the earliest microbial fossils as real.

Ironically, even *SEAO* (2003) conceded the reference to the time of life's first appearance "says nothing about how life might have originated," but still balked at the mention of it as they targeted "the controversial 'macroevolution' theory (descent from a common ancestry)" without specifying in what way any of this necessitated Intelligent Design. This stance also implicitly collided with their own ID stalwart Michael Behe, whose putative acceptance of *common descent* had obviously shown no appreciable market penetration among fellow antievolutionists.

Popular coverage can reinforce these muddled views without even realizing it, such as the *Columbus Dispatch* (2000) providing a perfectly accurate "Evolution timetable" for their readers that explained: "The theory of evolution holds that simple life forms appeared on Earth about 3 1/2 billion years ago." But it is not evolutionary theory *hypothesizing* that state of affairs (though it certainly was consistent with evolutionary expectations)—it is the factual discoveries of paleontology that have put those benchmarks on the table, and any theory of origins (including Intelligent Design) would have to address that sequence of appearance (no "origin" with bears being made first, for example).

It is the rest of the *Columbus Dispatch* (2000) list, and not the starting "origins" point, that poses the largest conceptual problem for many antievolutionists. There is a *very* long time (1.5 billion years) after "Microbial cells" appeared before more "Complex cells" show up, and almost as long again before "Multicellular animals" are found toward the end of the Precambrian, which is still tens of millions of years before the "Shell-bearing animals" show up in the Cambrian Explosion. To what extent this leisurely chronology would suggest a Designer (and only just the one?) prone more to mind-numbing lethargy than spunky ingenuity is not one of the "alternatives to evolution" design advocates are inspired to consider.

The *Columbus Dispatch* played onto another contentious subject by the items listed next, clearly aiming at our own parochial slice of the pie of life: “Vertebrates” (490 Ma), “Amphibians” (350 Ma), “Reptiles” (310 Ma), “Mammals” (200 Ma), “Primates” (60 Ma), “Earliest apes” (25 Ma), “Australopithecine ancestors of humans” (5 Ma) and “Modern humans” at 150,000 years ago (still around twenty times the age of the universe by the YEC yardstick)—by omission neglecting that lots of novel forms were showing up in other branches of life, and so unwittingly reinforcing creationist acceptance of humans as the primary object of creation in the Garden of Eden petting zoo.

All of this is a long way from the Genesis creation story of familiar plants and animals, with no recognition of those bacteria or place for the menagerie of extinct forms unknown in Biblical times. Owens-Fink and the *SEAO* were trying to pack their baggage on “origins” with a body of life history that was never going to fit their Bronze Age religious luggage any more than carnivorous tyrannosaurs dying out 65 Ma could be crammed into the much smaller YEC Flood Geology carryon travel bag.

1.7 Section 9: Preaching ID to the Choir—Debating the *Discovery Institute* in Ohio and elsewhere

Perhaps fearing that the activists swarming around the OBE might not prevail against the dark forces of Naturalism, antievolutionists in the General Assembly weighed in, *Plain Dealer* (2002a) and *SEAO* (2003). John Calvert supplied language that ended up as **HB 481** by Reidelbach & Collier *et al.* (2002). It would require that “origins science” be “taught objectively and without religious, naturalistic, or philosophic bias or assumption” in Ohio schools, though with a Calvertian lack of specificity about what constituted “origins science” or how those proposed biases were to be evaded regarding actual evidential discussion in science class. And just to act as an additional backstop, **HB 484** by Reidelbach & Calvert *et al.* (2002)—the Calvert in this instance being the unrelated Chuck and not John—would require the standards be approved by both houses of the General Assembly. Despite a day of exclusively pro-ID testimony before the House committee from Jonathan Wells, Stephen Meyer, John Calvert and David DeWolf (or maybe because of it) neither bill made it out of committee for a floor vote.

How deeply any of the General Assembly sponsors had studied the evolution issue is unclear (none appeared to have kept up their activism and Ohio term limits played some part in trimming careers). A few surfaced later over *Kulturkampf* issues and politics: Mike Gilb tried unsuccessfully to get the Ten Commandments officially recognized as the moral foundation of the state’s government so that they might be openly displayed in government buildings, Austin Cline (2003), while Jean Schmidt temporarily earned the nickname “Mean Jean” while in Congress for scolding ex-Marine Vietnam war vet John Murtha that “cowards cut and run, Marines never do” over his favoring an expeditious military withdrawal from Iraq, Babington (2005).

While some in the General Assembly were trying to politicize the educational processes, the Ohio Department of Education began to warn the Board that favoring only one “alternative” to evolution (Intelligent Design) would bring on the inevitable lawsuits (which legal precedent would suggest they would summarily lose). There were also grumbings about mass resignations from their own advisory panel should the OBE continue its stroll down the *Intelligent Design Network/SEAO/Discovery Institute* garden path.

The Standards Committee decided then to sponsor a public debate to thrash the matter out. Originally it was to be Jonathan Wells from the *DI* and Jody Sjogren squaring off against Ken Miller and physicist Lawrence Krauss, Candisky (2002a), but by the time the protagonists arrived at the Franklin County Veterans Memorial Auditorium in Columbus, Stephen Meyer had replaced Sjogren to render the pro-ID side a full *Discovery Institute* show (strengthened presumably by congenial audience members, such as ID-friendly flagellum researcher Scott Minnich coming all the way from Idaho).

Restricted to a firmly enforced fifteen minute time limit per speech (followed by an hour of Q&A limited to short responses), it was unsurprising that the ID advocates expeditiously reprised their talking points, and their opponents in turn quickly repeated their own criticisms of those positions. Local

coverage like Feran (2002) was critical of the ID side. Clines (2002) in the *New York Times* was noncommittal, while Witham (2002a) was more ID-friendly for *The Washington Times*, the conservative paper owned by Sun Myung Moon (1920-2012) of Korea, whose controversial Unification Church has intersected the ID debate via one their denomination, *Icons of Evolution's* Jonathan Wells (more on those connections in due course). Fred Hutchison (2002), the “Renaissance Fool” encountered back in section 1.3, waxed impenetrable under the *Discovery Institute's* “Center for the Renewal of Science & Culture” banner, where readers would have a hard time knowing what arguments were being presented by any of the speakers.

SEAO (2003) was clearer but lopsided, detailing over six long paragraphs the points made by Wells and Meyer while dismissing in four shorter ones Krauss’ response (“casting aspersions on its adherents and tenets”) and Miller (“trying to refute” Wells and Meyer and claiming “that Wells had misrepresented some of the evidence in *Icons of Evolution*”) without mentioning any examples. *SEAO* thought Meyer & Wells won the debate, though “not by a large margin.” Ken Miller (2002b) was more forthcoming in his take on the exchange, having correctly anticipated that Wells would repeat his faulty criticism of one of Miller’s own textbooks, and so arriving well prepped for rejoinder.

But beyond the technical claims of ID was a revealing difference between the two camps when it came to the domain of their support. Krauss and Miller reminded the audience of 1500 that Intelligent Design had as yet earned no credibility in the sciences, and that doing a two-on-two debate in this manner incorrectly magnified the degree of ID popularity—another issue *SEAO* (2003) shuffled past by opining “the Krauss-Miller argument that ‘there is no controversy’ sounded quite hollow” while conceding with neck-snapping understatement how “the modern synthesis of intelligent design is not yet well established in the scientific community.”

Phyllis Schlafly’s *Eagle Forum* (2002) tripped on this matter of earned expertise in a last-minute promotional announcement for this “historic debate” by enthusing that “All panelists are experts in the field of science” and alluding to some of their publication histories as though all were equally qualified in the ways that counted (evolutionary biology and paleontology). Krauss offered a less flattering but more accurate proportion if the debate had reflected the scale of the bigger research world: there should have been 10,000 scientists to one *Discovery Institute* Senior Fellow. My own investigation of how few core ID theoreticians there are (arguably less than a dozen) versus just the number of working scientists (easily 28,000) authoring technical papers relevant to creation/evolution issues would suggest a couple thousand to one as a fairly defensible minimum floor, putting Krauss’ number at least in the ballpark.

A further sign of ID’s distance from the cutting edge of science is the absence of any sign of researchers actually *using* any of their concepts, as Gilchrist (1997) and Scott & Branch (2002) had noted. Coverage of the ID debate in a special issue of *U.S. News & World Report* by Holly Morris (2002) included quite good articles by Hayden (2002) and Ruvinsky (2002) on current evolutionary research and investigating speciation. *Discovery Institute News* posted the Morris article (a selective welcome of positive coverage insofar as Morris had contrasted old style creationism with ID in a manner concordant with the ID “we’re not creationism” position) but did not include the two companion articles that would only have spotlighted how uninvolved the design community was in the workaday activities of contemporary biological science.

The lack of an operational foundation for Intelligent Design contributed to the short bumpy ride William Dembski’s “Michael Polanyi Center” had at Baylor University, Kern (2000) and Scott (2000c). Dembski had met Baylor’s President Robert Sloan (the first Baptist minister to lead the university since the 1960s) in 1996 when Dembski taught his daughter at a Christian summer camp, and went around the usual channels to bring Dembski and his colleague Bruce Gordon to Baylor in 1999 to set up the center. Michael Polanyi (1891-1976) was a brilliant polymath whose philosophy of science included an occasional concern for the “testability” of evolutionary theory that creationists found congenial—and

hence was a name with a readymade antievolutionary cachet for a center intended to play a part in the expanding ID Wedge. But this proved to be a slice of Wedge that cut the wrong way. Misgivings among Baylor's academics about the science import of Dembski's ID portfolio prompted the center's relocation from the science department to the philosophy section. Then Polanyi's name was removed because the religious slant of Intelligent Design apologetics was deemed inconsistent with Polanyi's own rejection of any creator. And finally, after antagonizing his remaining supporters in the university's administration, Dembski departed in a buzz of press releases, to the consternation of ID supporters, such as Fred Heeren (2000c) decrying "The Lynching of Bill Dembski" for *The American Spectator*.

Around this time Dembski and the ID cadre were launching what they intended as a vibrant base for the academic promotion of their views: the optimistically titled *International Society for Complexity, Information and Design*. A December *ISCID* (2002c) email announced their plans to establish "A Strong Internet Presence" and reported on their progress so far:

1. **The Teleological Origin of Biological Information** was "an online conference to investigate the prospects of teleological approaches in biology" consisting of a familiar cast of characters: "William Dembski, Michael Behe, Robert Koons, Guillermo Gonzalez, and others."
2. **Live Chat Events** involved "prominent theorists in various academic fields," such as "David Chalmers, Stuart Kauffman, Ray Kurzweil, William Dembski, Jay Richards, and Christopher Langan." More an exercise in shoulder-rubbing PR than genuine discovery, none of the prominence of the first three scientists interviewed in 2002 appeared to have rubbed off on that latter ID trio by osmosis subsequently.
3. **ISCID Student Workshops** "for high school and college students" were led by ID advocates "Jed Macosko, Paul Nelson, Michael Behe and others." So much for the prospect of bringing in "various academic fields" to stimulate discourse.
4. **Brainstorms Discussion Board**, their "unique online discussion board" that would be joined by "well known professors from major universities."
5. **Progress in Complexity, Information and Design** was their "online journal for scientific exploration." ID exemplars Dembski (2004g) and Wells (2004b) would appear there, but so too YEC visitors like Royal Truman (2004a-b).

Although Dembski had invited Richard Dawkins to become a fellow of their society and contribute to their planned journal, Dawkins (2002b) decline this honor declaring at age 60 he had more pressing things to do than engage "in a gratuitous waste of precious time." For the next few years the *ISCID* operated as a glee-club for the *Discovery Institute* group to post their arguments and respond to their critics, though by 2008 it had spluttered even in that ambition, leaving its *ISCID Encyclopedia of Science and Philosophy* (encountered in section 1.3 earlier regarding Punctuated Equilibrium) as a lasting online monument to exactly how savvy Dawkins' snarky assessment had been.

But the Design community tends to attribute any absence of institutional respect to factors other than their sublime lack of utility. For Hartwig (2002a) "the claptrap" represented by Krauss (2002)—that science isn't a popularity contest, and there are minimal standards of evidence which pseudosciences from UFOs to ID have yet to attain—was merely "gallows humor" prompted by "the growing success of the Wedge." But then, like Tanya Green, Hartwig thought "the Darwinists' campaign in Kansas was noteworthy for its viciousness" without offering any judgments on Tom Willis' geocentrism or a whiff of criticism of the YEC cosmology in those 1999 standards.

Phillip Johnson mounted a similar steed. After *Ohio Academy of Science* director Lynn Elfner questioned Intelligent Design's scientific status ("Most mainstream scientists say the concept is scientifically untestable") Johnson (2002a) recognized only exclusionary elitism: "I guess saying that is how they got admitted to the mainstream." And when 15 Ohio university presidents weighed in to

oppose the inclusion of ID in the science standards, Glidden *et al.* (2002), Johnson (2002c) decided “Darwinism is facing a huge crisis,” with the concerns of all those Ohio college presidents representing only “a desperate measure that indicates how fearful Darwinists are at the prospect of losing their monopoly over education.” In Johnson’s framing, apparently no scientist or academic is permitted the integrity of their own convictions should they not coincide with his own. *SEAO* (2003) took the more traditional approach to skew the perception of ID support by skipping mention of the presidents’ message altogether.

At the Columbus debate Meyer made a populist appeal by noting a poll of Ohio voters that showed over 70% favored their “teach the controversy” approach. But any hope to decide science education content by plebiscite depended on how many of a state’s *vox populi* were going to follow technical issues at the level necessary to reach an informed decision, and that was pushing wishful thinking to the wall. A case in point concerned Greenspan & Canamucio (2002), a deft anti-ID critique in *The Scientist* that the libertarian denizens of the *FreeRepublic* website posted in full and vigorously commented on. Although the authors explicitly offered examples of work that undermined the claims of Intelligent Design, such as Bugge *et al.* (1996) apropos Michael Behe’s “irreducibly complex” characterization of blood clotting—covered at length in **Chapter 4** of Downard (2004)—not one of the posting commenters (whether they favored ID or not) bothered with any of those particulars and instead simply repeated their cozy mantras.

That this was the case broadly in Ohio was supported by a later poll conducted by *The Plain Dealer*, Stephens & Mangels (2002b), showing a somewhat lower 59% of Ohioans wanted evolution and intelligent design taught in their schools, but that they favored that primarily “because it appealed to their sense of fairness,” Vicki Johnson (2006, 232), not because they understood what ID meant or had been following the debate. When *The Plain Dealer* (2002c) editorialized that ID “should be covered in schools,” but only “for theology or philosophy classes—not science,” Hartwig (2002d) tried to spin that into a flip in position by quoting their “best option” fallback position given theology and philosophy classes weren’t common in public schools: “simply teach evolution honestly, explaining the theory’s strengths and weaknesses, as well as the truth that plenty of gaps exist in man’s knowledge about life’s development.” That such an approach wouldn’t be helping ID’s claim to offering their portfolio of “weaknesses” was suggested by a sentence from the editorial Hartwig did not quote: “Presenting intelligent design as science would be a perversion of that teaching.” *SEAO* (2003) offered similar spin as Hartwig.

The Plain Dealer (2002b) didn’t accept the ID effort to distance themselves from “the Bible-based notion of creationism,” and “While intelligent-design advocates insist the concept has no religious overtones, Ohioans aren’t buying that, either,” Stephens & Mangels (2002b). That’s because *The Plain Dealer* poll also found 68% identified God as the designer—no space aliens here, or the vague “higher being” Calvert let slip when interviewed by Pyeatt (2002)—and almost half of those were YEC Genesis literalists. Apply then some basic long division: if around 30% of Ohioans are YEC and supposing a lot of those fell in the “teach the controversy” fairness camp (and how likely was it that a significant number of them had answered otherwise), that meant roughly half of Ohio’s pro-ID base were the very Young Earth Creationists Calvert and *SEAO* would prefer not to think about—*SEAO* (2003) did not mention the magnitude of creationist belief in Ohio when they discussed the poll.

Though evolution backers weren’t encouraged by *The Plain Dealer* poll, there were aspects of it that should have been raising comparable flags regarding how little traction the Calvert (godless) Naturalism vs. (unspecified “designer”) Design polarity was getting. “Asked if intelligent design is just a way to slip religion into schools, 56 percent answered no,” Stephens & Mangels (2002b), which would be a plus for the Calvert approach, were it not for the other shoe that dropped: “Nearly two-thirds of the respondents disagreed with the suggestion that teaching evolution is an attempt to remove God from society.”

Fishing for further confirmation, the *Discovery Institute* had commissioned Zogby International to include some questions on “Views on Teaching Theory of Evolution” to assess the support in Ohio for their “teach the controversy” approach, Mark Edwards (2002a) with *Weekly Wedge* praise from Hartwig (2002b). The unsurprising results were in line with the prior surveys: while 19% agreed that “Biology teachers should teach only Darwin’s theory of evolution and the scientific evidence that supports it,” 65% preferred “Biology teachers should teach Darwin’s theory of evolution but also the scientific evidence against it.” The remaining 16% chose “Neither/Not sure.” Interestingly, Bruce Chapman & Stephen Meyer (2002) gave numbers for the *Zogby International* (2001) poll with the same questions: 15% for the (A) evolution approach and 71% for “teach the controversy” (B)—suggesting that their intensifying ID efforts had managed to erode support for their own position by several percentage points.

Sjogren *et al.* (2002), meanwhile, played the popularity contest game in another way by assembling a list of 52 Ohio scientists calling for “Academic Freedom on Darwin’s theory.” It was interesting that among the signatories were prominent YEC creationists Jerry Bergman and Georgia Purdom. The *Discovery Institute* did not show comparable enthusiasm when *Ohio Citizens for Science* (2002) marshalled their own petition of over 2700 to keep the evolution standards intact.

Showing they knew how to perform authority quoting just as energetically as their YEC counterparts, though, the *Discovery Institute* (2002b) also prepared an annotated bibliography of forty-some secular science papers for the OBE that Meyer (2002) contended “raise significant challenges to key tenets of Darwinian evolution,” and which Hutchison (2002) inflated into papers “written by intelligent design theorists”—prompting a hasty disclaimer to be added opting for the Meyer phrasing (and when I checked in March 2014 Hutchison’s piece was no longer available).

While Tristan Abbey (2002) confidently repeated claims culled from the Ohio bibliography at the *Intelligent Design Undergraduate Research Center, NCSE* (2002b) criticized the *DI* treatment as “frequently inaccurate and tendentious” and included the complaints of many of the authors concerning the *DI*’s misrepresentation of their work, Branch (2002b)—incidentally, Abbey’s status as a strictly ID defender is arguable, given he contributes to the YEC *Geoscience Research Institute*, Abbey (2007). The response by *Discovery Institute* (2002b) was firm: “Every case of misrepresentation claimed by the NCSE dissolves entirely on close inspection.” Quote-mining pros Henry Morris or John Ankerberg couldn’t have said it better (the technical content of the Ohio bibliography and how the *DI* treatment measured up on the sound scholarship meter will be covered in subsequent chapters as the topics arise).

The Ohio *DI* bibliography bad penny surfaced again in Wisconsin when the Grantsburg School Board caught the “teach all theories of origin” bug in 2004, motivated especially by two members: Cindy Jensen and the chairman David Ahlquist (who also was pastor at the local Grace Baptist Church), Vitale & Vitale (2004) and Petto (2005). While their new policy did “not call for the teaching of creationism or intelligent design,” all their evidence consisted of *Discovery Institute* downloads and the bibliography of sources they offered just happened to match the *DI*’s list in 42 of 44 items—though local creationist supporters were as liable to invoke YEC works like Jonathan Sarfati’s *Refuting Evolution* as well. By now grassroots activists were primed not to let such maneuvers go unchallenged, but Ahlquist’s redoubt was tough to scale: the board welcomed “expert” ID speakers but refused scientists a response hearing, and would not reconsider even after letters signed by some 400 Wisconsin scientists and educators (representing biologists, geologists and anthropologists) opposed the new policy, Benson *et al.* (2004), Abler *et al.* (2004), Anapol *et al.* (2004) and Adam *et al.* (2004). Ahlquist and Jensen narrowly survived election challenges and so maintained the “all theories” provided it matched what they wanted to be true policy in place.

There was another well-publicized debate on ID the following month at the *American Museum of Natural History*, with Behe and Dembski facing off Ken Miller and philosopher Robert Pennock, moderated by Eugenie Scott. *AMNH* lending yet more attention to the flexing ID movement was

considered a controversial move at the time by some, and the *Discovery Institute* characterized the meeting as “an historic confrontation” in a comment appended to their reprint of Scott Stevens (2002) reporting for the *Plain Dealer*. Samples of the participants’ positions were presented in *Natural History* magazine and distributed at the debate: Behe (2002), Dembski (2002c), Miller (2002a), Pennock (2002) and Scott (2002), with additional perspectives by Wells (2002a), Forrest (2002) and Tattersall (2002b).

Hartwig (2002e) grumped in the *Wedge Update* (by then no longer striving to be *Weekly*) that “the whole exercise clearly was to trash ID” because Behe, Dembski and Wells weren’t given opportunity to reply in the magazine first, an odd position to take given that it was the object of the debate itself to exchange critiques. Sounding like the YEC *Apologetics Press* (in section 1.3 above) Hartwig also complained about Rennie (2002b) on “15 Answers to Creationist Nonsense” in *Scientific American*. “Much of Rennie’s article is disingenuous, and in places factually wrong,” but offered no examples for us to assess the character of that “substantive debate” Hartwig was sure Rennie’s article would provoke.

The campaign to support ID played out on *Kulturkampf* but not scientific fields. Rick Santorum (2002) warned about “Illiberal education in Ohio schools” at *The Washington Times*: “If the Education Board of Ohio does not include intelligent design in the new teaching standards, many students will be denied a first-rate education.” Santorum was also intimating that Edward Kennedy’s support for his amendment translated into approving of Intelligent Design, and when Kennedy objected to this mischaracterization, Dembski (2002b) swung in to dismiss the senator from Massachusetts as “no scientist or philosopher of science” (quite true) who merely took his cues from opponents of ID—sliding past the fact that the same charge of superficiality would apply even more to Santorum and the ID proponents he was relying on. “The problem with intelligent design is not that it fails as science,” Dembski explained with question-begging sincerity, but just a contest for turf: “The problem is that evolutionary biology holds a monopoly that it is reluctant to relinquish.”

Down in the underbrush, *SEAO* (2003) reported how they “led the effort to get thousands of Ohioans” to send emails objecting to the “evolution only” approach still being favored by the main OBE, while Owens-Fink and Stephen Meyer appeared on *Focus on the Family*’s radio show to press their case among the faithful. *Focus on the Family* also joined with the *Discovery Institute* and Phil Burress’ *Citizens for Community Values* (meaning the community that disapproved of abortion and gay rights) to show on five Ohio television stations the “excellent” new “Icons of Evolution” video based on Wells’ book, affording many more people to experience Wells’ propaganda from the comfort of their living room couch.

In June yet another evolution/ID face off occurred at the *CSICOP Fourth World Skeptics Conference* in Burbank, California between Dembski and Paul Nelson contra Wesley Elsberry and Ken Miller, Massimo Pigliucci refereeing this time. Dembski (2002g) offered an especially rosy picture of the rising tide of design support, including “glimmers of a thriving design-theoretic research program.” He plucked the populist string as well by contrasting “the educated elite that love evolution” with the masses who “are by and large convinced of intelligent design,” citing with evident pleasure the *Plain Dealer* poll’s 59% support for teaching the controversy. Dembski did not allude to that poll’s findings on the 30% creationist component, and so steered clear of pondering how much of ID’s popularity rested on the backs of the YEC subculture.

Viewed over a decade later, though, the *AMNH* and *CSICOP* meetings can be seen as only a minor blip in an Intelligent Design campaign that went exactly nowhere scientifically. A typical measure of wheel-spinning would be the ID-friendly *National Association for Objectivity in Science* (2002), which included Richard Milton (1997) along with the expected Michael Behe, Michael Denton, Phillip Johnson, and *Of Pandas and People* (though not *Icons of Evolution*, surprisingly enough) on a short list of recommended works that could explain how they managed to get the science basics so very wrong (from the idea that “virtually all genetic mutations are detrimental to organisms” to the supposed lack of intermediate forms or structures in fossil taxa). A check of their website (updated only as of 2010) in

February 2014 showed no changes to their reading list, not even the newer ID tomes like the *Of Pandas and People* replacements, *Explore Evolution* and *The Design of Life*—but then there wasn't really anything novel to add conceptually even had they been included.

If the idea behind having such debates or to flood members with pro-ID emails was to sway the remaining fence straddlers on the main OBE, it backfired, as the board now split right down the middle pro and con, and the main writing committee showed little inclination to water down the evolution standards to suit the Lattimer camp. From faraway Colorado, Andrea Korow (2002) put up a “Prayer Alert” at the *Alpha Omega Institute* to encourage their Ohio brethren not to abandon the Santorum-inspired inclusion of Intelligent Design.

Ironically, just as one Ohio school district was stepping up to be the first in the state to openly include Intelligent Design in their schools, Sidoti (2002a), the ID advocates on the writing committee were giving up on that idea in favor of tweaking the remaining references to evolution and origins to stress their supposedly speculative nature, Candisky (2002b). In October 2002 the Ohio Board of Education unanimously voted (with one abstention, Martha Wise) for this dual approach of teaching evolution while flicking a wink at the criticism, and allowing local school boards to include ID but without any mandate to do so, Candisky (2002c), Sidoti (2002b) and Stephens (2002a), an outcome met with kudos from *Discovery Institute* (2002f) and Hartwig (2002h).

Savoring this ID victory, Hartwig offered his *Weekly Wedge* readers a helpful collection of “Teaching the Controversy” resources consisting only of their side: starting with his own Hartwig (2000b-c), the unavoidable Wells (2000a), the more targeted *Kulturkampf* apologetics of Johnson (1997b), a light cartoon-based dialogue from Newman & Wiester (2000) that thought to disentangle YEC issues from the “creationism” tag without actually disputing any of them, an anthology of the ID choir assembled by Dembski & Kushiner (2001), *Discovery Institute* (2001a) going after the PBS *Evolution* series (more on that program and antievolutionists characterization of its content in later chapters), and the legality of all this ID pedagogy affirmed by DeWolf *et al.* (1999; 2000)—that last citation of debatable depth given its peculiar misrepresentation of Niles Eldredge's *Reinventing Darwin* (noted in section 1.3 above) as somehow antievolutionary.

When the *American Association for the Advancement of Science* and its chief executive officer deemed the OBE's decision most inauspicious, AAAS (2002a-b) and Leshner (2002a-b), Hartwig (2002i) chalked this up to “Darwinist anxiety” as Teach the Controversy (now abbreviated to **TTC**) successfully took aim at “the Darwinist party line.” In December the final OBE vote stuck with the evolution-only (plus a wink) approach, Meikle (2002) satisfying *SEAO* (2003) and their orbiting allies at *Focus on the Family*, the *Discovery Institute* and the *Intelligent Design Network*.

1.7 Section 10: Bumper Sticker Antievolutionism—The Cobb County disclaimer as TTC archetype

At the same time, Cobb County in Georgia blazed into view as their school board jumped on the textbook disclaimer bandwagon, Matsumura (1997c; 1999e), Ken Miller (2000a), Holden (2002b), Italiano (2006, 9-14) and DelFattore (2007, 66-69). That vehicle had first rolled onstage in 1974 when Tennessee suggested one (back when Creation Science was the antievolutionary position being defended) but hadn't progressed very far when Louisiana's 1994 attempt slammed into the courts (albeit with Scalia's dissent as noted in section 1.6 earlier) because of its overtly religious framing of evolution as a school topic that should not “influence or dissuade the Biblical version of Creation or any other concept.” Whereupon legislators and state boards of education in South Carolina, Mississippi, and Louisiana retooled with more secularized **TTC** statements, and others went for even more minimalist textbook warning stickers: Oklahoma and Texas, though carried through to the actual book-pasting stage only in Alabama.

Although Uddin (2007) suggested it might be possible to craft a generalized disclaimer that could survive a constitutionality test (though nothing specific was suggested for inspection), it was

problematic that any wording that innocuous would satisfy its target audience, *Kulturkampf* activists who want evolution undermined one way or another.

The superficial methodology and partisan core of the disclaimer campaign was most plainly on display in the Alabama case. Former biology teacher turned evangelist Norris Anderson wanted a textbook insertion and was the prime mover for it when he was on the Alabama state textbook committee in the 1990s, Branch (2015h). His defense for the insert, Anderson (1996), consisted of the familiar superficial authority quote approach to such issues as the Cambrian Explosion, escalating into rhetorical questions like “Why have no new major groups of living things appeared in the fossil record in a long time?” and “Why do major groups of plants and animals have no transitional forms in the fossil record?”—statements objectively incorrect in 1996 (as witnessed in the reptile-mammal transition, a pretty major group emergence Anderson’s secondary reliance on design advocates never brought him in contact with, focusing as it has on spinning at the phyletic level).

The Alabama State Board of Education adopted the newer 2000 warning label “due to prodding from Phyllis Schlafly’s Eagle Forum,” Benen (2000c), part of a climate of evolution avoidance contributing in due course to poor understanding of evolutionary science concepts at the college level, Rissler *et al.* (2014). Oklahoma followed a similar track, copying Alabama’s specific language that had repeated the obligatory antievolutionary myth about the supposed dearth of transitional forms, *Oklahoma Textbook Commission* (1999). Having detected in this “the growing integrity of Intelligent Design,” David Hacker (2004) of the *Alliance Defending Freedom* (an offshoot of the *Alliance Defense Fund*) extolled these “secular evolution disclaimers” as positive moves “enriching public education.”

Political and religious components went hand in hand in the Oklahoma case: 7 of the 11 textbook review board were members of the conservative non-union Association of Professional Oklahoma Educators, Matsumura (1999e), and legislative supporters wanted state-approved textbooks also to acknowledge “one God as the creator of human life in the universe,” Jerry Pierce (2000). While *Answers in Genesis* (1999e) cheered the Oklahoma creationists on, twenty authors of biology textbooks (including those like Ken Miller who had already expressed their disapproval of creationist beliefs on many occasions) and 125 University of Oklahoma scientists and historians of science registered their opposition to the disclaimer plan, Alberts *et al.* (1999) and Fincke *et al.* (1999). Though failing to get legislative approval in 2001 and again in 2003, backers finally shepherded it through the Oklahoma state House in February 2004, Matzke (2004a).

The Georgia disclaimer had a similarly protracted gestation. Georgia already had a policy since 1995 to warn the kiddies that “some scientific accounts of the origin of human species as taught in public schools are inconsistent with the family teachings of a significant number of Cobb County citizens”—though more than just human origins seemed a sticking point, as three families tried in 1996 to get a science textbook chapter removed that dealt with the age and origin of the universe, Flank (2006b), and “long” was eventually removed from Georgia curriculum references to the “long history of the Earth,” Jacobs (2004). The court case testimony brought out that some Georgia teachers simply didn’t mention evolution in their courses, and the evolution pages in textbooks were removed in some science classes, DeFattore (2007, 66-67).

Urged on by local chapters of the *American Family Association* and Ralph Reed’s *Christian Coalition*, the old disclaimer was replaced with **TTC** buzzword vagueness to avoid any overt sign of the religious concerns underlying why the language was being proposed in the first place: “discussion of disputed views of academic subjects is a necessary element of providing a balanced education, including the study of the origin of the species. This subject remains an area of intense interest, research, and discussion among scholars.”

All this flummery prompted Hartwig (2002g) to detect a change in speed for the ID bandwagon: evolutionists “know the momentum is shifting—even in the scientific community,” citing those “hundred scientists” and “52 Ohio scientists” who had signed the Darwinian skepticism letters, while

Discovery Institute (2002e) iterated a version of 28 for Georgia culled from the Schaefer *et al.* (2002) list, though McDonald (2002d) noted that many more academics at Georgia State University, Emory University and Kennesaw State University “have already submitted sets of petitions challenging the proposed policy. At Emory alone, 99 professors signed petitions.” In fact, flocks of disapproving scientific associations weighed in, reported by Applegate *et al.* (2002) and Skip Evans (2003a), only to be ignored as usual by the cadres singing the **TTC** refrain.

The *ACLU* and Barry Lynn’s *Americans United for Separation of Church* joined the fray, commencing a legal back and forth that further fanned the flames of controversy (the theater attracted Penn & Teller, who devoted an episode of their Showtime *Bullshit!* series to Cobb County). While the district court had upheld the disclaimer, the case fell apart on appeal.

In view of creationist allegations about the fossil record, it is hard to tell whether the U.S. Court of Appeals for the Eleventh Circuit had its tongue in its judicial cheek when it used the phrase “significant evidentiary gaps” to describe the record that went up on appeal. Be that as it may, the court observed that “Whether we should reverse or affirm the judgment depends on the evidence that was before the district court, and we cannot tell from the record what that evidence was.” The lawyers acknowledged that material had been omitted but could not say what it was, and “at least some key findings of the district court are not supported by the evidence that is contained in the record.” The district court had, for instance, mentioned a 2300-signature petition that appeared nowhere in the record, the only petition in evidence had been presented months later. *DeFattore* (2007, 68) internal citations omitted.

What remained was still illuminating. The Weaver *et al.* (2005) *Amicus Curiae* brief, for example, representing 48 “doctoral scientists who are skeptical of neo-Darwinian theory and chemical evolutionary theory on scientific grounds.” The brief spooled out the familiar litany of secondary authority citations scavenged from scientific literature to affirm that “Neo-Darwinian theory is being re-examined by scientists in light of new scientific discoveries” and quoting Michael Denton on evolution being “a theory in crisis” as though that meant what the signatories wanted it to mean, that peripheral disputes over the mechanics of “Neo-Darwinism” genuinely undermined the idea that all life was related by natural common descent.

Just how disingenuous the Weaver brief asserting how “scientific” their focus was is indicated by a closer look at who was on it and what their backgrounds were. Most were already signed up for the *Discovery Institute*’s growing “Dissent from Darwinism” list, and included Charles Thaxton, Dean Kenyon and William Harris, as well as biologist Cornelius Hunter (an active combatant in the ID apologetic world, whose analytical skills were encountered back in section 1.4). But below those activists, apart from their participation in the Weaver *Amicus Curiae* or joining the “Dissent from Darwinism” cavalcade, most expressed no discernable opinion before or since on evolutionary matters to assess just how familiar they were with the subject.

Direct religious apologetics were represented by Ray Bohlin’s *Probe Ministries* and Leon Combs’ *Living Theology*, but over 20% of the group were involved with the *Christian Faculty Forum* (2002) active at the University of Georgia. Many of their degrees were not ones normally associated with the “scientific grounds” for modern evolutionary theory: chemists Henry Schaefer (whose P-E potshot was noted back in section 1.3) and Darwin Smith, engineer John Worley, entomologist Keith Delaplaine, forester & meteorologist Gary Achtemeier, linguist Michael Covington, microbiologist Timothy Hoover, pharmacist William Wade, poultry scientist Bruce Webster, and toxicologists Cham Dallas and Robert Wentworth. In his revision of a 1999 church piece, Covington (2011) was at least forthcoming: “I am not a professional biologist and cannot give expert opinions on biological questions.” Apart from signing an

amicus brief back in 2005 presupposing just that.

Ironically, while Covington (2005) held “Young-earth sophistry is divisive and an obstacle to evangelism” and Covington (2013b) deemed some of their views “occasionally rises to the level of a heresy,” he was rubbing shoulders with quite a few heretics in the Weaver brief, including a pair of aerospace engineers: Malcolm Cutchins, serving on the “Technical Advisory Board” of the *ICR* (2014b), and Dewey Hodges closer to home, the founder of the *Christian Faculty Forum*. The topic of geochronology may not have arisen often at *CFF* as Hodges appears to have been more exercised over vanquishing Gay Theology in Olliff & Hodges (1996) and marveling over the beauty of concise physics equations, as interviewed by Robert Carter (2012) for *AIG’s Creation* magazine. Historian Emerson McMullen (1998a-b; 1999a-b; 2000; 2005; 2006) has been more verbose on his YEC convictions, defended via authority quotes mainly filched from Walter Brown, and the limited understanding of evolution by creationist chemist Nancy Bryson will be covered below concerning the renewed Kansas antievolution campaign.

In those rare instances when their technical fields did bump into evolutionary subjects, “Darwinism” wasn’t losing any sleep. Although Keith Delaplane was identified as an Intelligent Design advocate by Jacobs (2004), his work makes it difficult to tell what that meant. Indeed, when enthusing on the origin of altruism in the beehive “Superorganism” for Fluehr-Lobban (2011) he sounded like archetypal evolutionist E. O. Wilson. The same is true for Tim Hoover in Todd Smith *et al.* (2009) and Jennifer Anderson *et al.* (2010) on flagellar gene assembly, or the activity of two other microbiologists in the Weaver brief: flagellum researcher Scott Minnich in Monday *et al.* (2004) and other papers, and Yvonne Boldt *et al.* (1995) on the *extradiol dioxygenases* bacteria use to process carbon. None of their work undermined evolution but in fact only served to buttress its explanatory power.

Because the Cobb County disclaimer attracted so much commentary it helped identify more of the range and connective paths frequented by its many *Kulturkampf* supporters. Young Earth Creationist Ben Rast (2002c) of *Contender Ministries* out in Federal Way, Washington fumed in “THE SEPARATION OF GOD AND COUNTRY: The ACLU Rears Its Ugly Head in Cobb County, Georgia” how “The evolutionist believes in evolution—not because it is scientific, but because he considers himself too wise to believe in God.” Rast had a full plate of threats to warn about: cults like the Mormons, Scientology, and Catholicism, as well as the UN’s New World Order.

Chuck Missler (2002c) kept his own YEC proclivities temporarily stowed as he substituted media accounts for factual discussion when he deployed the *Discovery Institute TTC* approach to challenge “Darwinism’s monopoly,” juxtaposing selected local coverage of the Cobb County scientific disputants from McDonald (2002a,c) and Burch (2002) to give the impression that the protagonists were comparable in number or credibility. Three months later, Missler’s *K-House* news gave a Christmas Eve link to the *DI’s* John West (2002d) who wrote at *National Review* how the Ohio and Georgia developments suggested: “After years of being marginalized, critics of Darwin’s theory seem to be gaining ground.”

Missler’s *Koinonia House* ministry also linked to *The Bakersfield Californian* (August 27, 2002) for Cal Thomas (2002) on “Evolution and free speech.” Closely associated with Jerry Falwell’s “Moral Majority” culture, Thomas’ syndicated column was widely read in conservative newspapers and his cheerleading for the *TTC* approach was duly posted at *Townhall Daily* (hyped just a tad by renaming it “Making monkeys out of evolutionists”). There was much critical reaction to Thomas by *NCSE* (2002c), but curiously none of it spotted how he had inadvertently given the creationist context of *TTC* away (as well as inviting the opening of a horribly contentious can of educational worms) when he couldn’t resist dangling a very dated authority quote:

What do evolutionists fear? If scientific evidence for creation is academically unsound and outrageously untrue, why not present the evidence and allow students to

decide which view makes more sense? At the very least, presenting both sides would allow them to better understand the two views. Pro-evolution forces say (and they are saying it again in Cobb County) that no “reputable scientist” believes in the creation model. That is demonstrably untrue. No less a pro-evolution source that Science Digest noted in 1979 that “scientists who utterly reject Evolution may be one of our fastest-growing controversial minorities ... Many of the scientists supporting this position hold impressive credentials in science.” (Larry Hatfield, “Educators Against Darwin.” *Cal Thomas* (2002).

That Thomas had nicked Hatfield from a secondary quote mine rather than reading it himself was clear enough because the text Thomas used *had not appeared that way* in Hatfield (1979). Trivially, “Evolution” hadn’t been capitalized in the opening summary line that was drawn on, but more seriously, the second clause had actually read: “Some Creationists hold impressive credentials and cite science in support of their belief that the world was created 10,000 years ago.” At some point some untidy quote miner had converted “some” into “many” who held degrees specifically “in science” and uncritical copyists like Thomas have been repeating this chimeric version ever since.

An April 2014 Internet check retrieved over a dozen apologetic sites using it, such as *The Independent Thinker* (2001), a creationist newsletter “Specifically for those who question what they are taught”—but evidently not yet up to applying that standard to people they agree with (a mishmash of ID and YEC nameplates from Jonathan Wells and Michael Behe to Ken Ham, Carl Baugh and “Dr. Kenneth Hovind”). Another was the faithful summary of Lee Strobel (2004), *The Case for a Creator*, by Alex Damon (2004) for *Angelfire*.

All of which raises the recurring methodological concern: if someone like Thomas or *The Independent Thinker* or Strobel (and his online conveyor Damon by then yet one more step removed from Hatfield) can misquote an article so easily because they have lifted it from an *unidentified* secondary source, what conceptual barrier prevents them from doing that with just about everything they think, and what implications would this have for how **TTC** would be *applied* in Georgia and elsewhere?

But we’re not done with the Hatfield matter yet. The second clause of the Hatfield “quote” had been taken from an inset: “Who are the Creationists?” So who *were* they? As the date was 1979, Thomas ought to have known that the “scientists” being talked of couldn’t be the Intelligent Design proponents of 2002. And they weren’t. They were all Creation Scientists: specifically biologist Kenneth Cumming, biochemist Duane Gish, entomologist Joseph Henson, and three with engineering (not biology) backgrounds: aerospace Edward Blick, electrical Charles Harrison and civil Harold Henry.

And a pretty thin lot at that: not only were all peripheral scientifically in 2002 (insofar as work relating to biological evolution fields was concerned), but aside from the busy Duane Gish they played only a minor role even in creationist apologetics. Their collective paper trails have grown only more threadbare by 2014: Harrison and Henry have dropped off the scope entirely, while Cumming (1991; 2001) will be discussed later, along with the isolated apologetic postings of Henson (2013a-b) at Bob Jones University. Blick (1972; 2006) offered a light gloss of YEC opinion (from Henry Morris and Duane Gish to the Paluxy River tracks), but is known more today for his politically infused climate change denial, such as Blick (2009) on the “Global Warming Myth and Marxism.” Cumming had beat Blick to this *Kulturkampf* bar by some years, though, as Hatfield (1979, 96) quoted his belief that the 1970s’ ecological crisis “can be attributed rightly to humanistic mismanagement from an evolutionary perspective of man’s right to exploit his surroundings.”

A further clue as to just how superficial Blick’s understanding of details outside his aerodynamic specialty was surfaced in Blick (1972, 4): “The famous Albert Einstein had a simple argument against evolution – ‘God Almighty does not throw dice.’” It would have been even simpler for Blick’s assertion

had Einstein been talking about “evolution” at the time (creationists typically misuse the quote to falsely intimate he was conventionally religious), but Einstein was expressing doubt about *quantum theory*, not evolution, which made the physicist an even worse choice for namedropping here, since on that issue Einstein happened to be *wrong*.

Stephen Hawking (1999) is an apropos lecture on the dice quote—though not without some irony, as Hawking has been prone to using “God” terminology in the same misleading way Einstein did, as shorthand for Nature and humility, curiosity, and even reverence for the deeper processes underlying it. In this area of trying to coopt Einstein for religion, creationist David Noebel (2009) selectively quoted Jammer (1999, 48) that Einstein (in 1929 at least) did not think of himself as an “atheist,” and Amir Aczel (2014, 103-107) was similarly exercised over New Atheists like Lawrence Krauss and Richard Dawkins pegging Einstein as functionally an atheist. But whether Einstein’s occasional comments on “God” as a surrogate for the deep mysteries of why there are natural laws meant what Noebel or Aczel needed it to mean may be compared with Matthew Stanley (2009) and Coel Hellier (2013b) on Einstein’s ambivalent reaction to the activist atheism of his period—or even Christian apologist Rich Deem (2010b) acknowledging Einstein’s utter lack of belief in any personal morality-dictating creator god. It should be noted Einstein was a target for conservative xenophobes in America over his pacifism, but no indication that he had any concerns about evolutionary theory, Branch (2014ak).

So what would an honest science teacher in Georgia do when confronted by students or parents or legislators or pundits trotting out the belief system of Gish, Blick and company (perhaps even “quoted” from works exactly as carefully as Thomas and company did Hatfield)? If they followed Cal Thomas’ exhortation, and assuming they had done their scholarly homework, were they to dive in to explain in vivid detail all the reasons why the material being offered up was really wrong? Never mind that this would be forcing some teachers to offend *in class* the deep religious convictions of some of them who believed those things to be true in the same way Thomas believed Hatfield had written what he had “quoted” from him—no teacher could avoid this if the object truly was to “teach the controversy.”

There is no reason to think that Thomas ever imagined that could be the outcome of **TTC**. And that’s because of his implicit presumption that all those “many scientists” he imagined inhabited Hatfield’s secondarily pirated article (or their likeminded counterparts very much active in 2002 and since) could ever be in trouble that way. They must be right in all their views, and anyone who said otherwise must be blinded by that Darwinian dogma that **TTC** was certain to sweep away.

That **TTC** rested on the wide backs of Young Earth Creationist belief (plus or minus a few contentious zeroes) and the activism of its proponents was the unacknowledged cultural context for the disclaimer debate as John West (2002b) decried “Old Stereotypes” at *FoxNews.com*, reminding how the Georgia proposal did not explicitly “restrict the teaching of evolution” or “promote or require the teaching of creationism.” What West’s legalistic parsing did not consider was whether **TTC** as envisaged by people beyond the *Discovery Institute* reserve in any way *prevented* creationist views from being presented.

The irony (or hypocrisy, depending on one’s willingness to take their obtuseness as genuine rather than calculated) was only heightened when John Calvert and William Harris traveled to Cobb County for a Sunday seminar that “began with a prayer” to assure everyone that in pursuing the **TTC** paradigm “they are not advancing a faith-based approach to science education,” McDonald (2002b).

The phenomenon resumed after the court ruling that struck down the disclaimer, Brayton (2006d) noting the disdain of the *American Family Association*’s Brian Fahling. Dave Nutting (2005b) protested from the *Alpha Omega Institute* how the disclaimer had nothing to do with any “alternative theory” (like the creationism he believes in) and concluded: “It is time to say, ‘NO’ to the ACLU and the small minority that are wrecking the educational system of this country in their attempt to promote atheistic, humanistic philosophy!”

1.7 Section 11: Tweaking “Science” Just a Bit—Distinguishing *Operational* from *Historical* science

While the disclaimer wars in Cobb County and elsewhere illustrated the surface patina of the creationist milieu, the “Design Hypothesis” game plan in Ohio went way beyond the generalities of the Georgia textbook sticker to redefine the nature of science. *Science Excellence For All Ohioans* drew a distinction between “empirical (or experimental)” science and “historical science” where pretty much nothing can be “proved” for events in the past because they “cannot be verified experimentally,” *SEAO* (2001; 2003). This way of keeping **Deep Time** origins issues isolated from contemporary investigation had been an undercurrent in creationist thinking from the start (especially when dismissing fossil evidence for evolution as mere speculative guesswork), but the explicit historical/experimental demarcation was a child of Charles Thaxton’s *The Mystery of Life’s Origin* in the 1980s, percolating into YEC lore via Norman Geisler’s apologetics, and congealed further by *Of Pandas and People*, Scott (2007, 66-67) and Rusbelt (2010).

Regular creationists found it a most congenial cleaver, of course, picked up by Batten (2002a) for example, while Hanegraaff (2005h) fiddled with the terminology somewhat by contrasting “operation science and origin science,” and similar distinctions arose as Steve Fuller (2008a, 145-150) approached Michael Behe’s irreducible complexity argument, showing how in practice Fuller could end up reasoning much like Calvert and the YEC brigade. By the time of Lycklama (2008), Lacey (2011a) and *SABBSA* (2013b) this “operation science” distinction had become yet another entrenched dogma, prominently on display when Ken Ham debated Bill Nye at Ham’s Creation Museum in February 2014. And, of course, out in the blogosphere, creationists easily strap the concept onto their particular hobbyhorses, such as one I encountered in May 2015 on Twitter, Dennis DeSouza (2014) en route to World Trade Center conspiracy land with a fuming demand to know why ubiquitous video physicist Michio Kaku supposedly lied “about 9/11??? Physics & Evidence of Melted Steel!”

That even historical events can be tested by present observation and experiment (forensic scientists do it all the time in criminal cases) evidently eludes Creation Science and Intelligent Design methodology in equal measure. This may reflect how few of either actually do science of any kind, let alone ones where “observation” is liable to leak over into the “origin” danger zone. Nor was it obligatory for religious scientists to cleave along the arbitrary fault lines proposed by antievolutionists, as the blog of Christian biology teacher *Defensedefumer* (2010a) reminded *Answers in Genesis* that all science employs observation as basis for their justifiable conclusions.

Veterinarian Dan Korow (2001a) was most obtuse on this issue at the *Alpha Omega Institute*, illustrating by *his own experience* how past action could be inferred (such as the wound marks on a dead pet suggesting a dog bite) but insisting that kind of reasoning precluded “direct observation, experimentation, retesting, and refutation” once you are into “millions to billions of years” (as though a tooth mark on a fossil or the telltale isotope content of deposits aren’t just as firmly observable than comparable phenomena closer to today). With that, Korow decided evolution and Creation “are statements of faith, and are inherently religious in nature.”

Online Bible instructor RockieSue Fordham (2009a) saw far less equivalence, though, holding evolution’s failure to distinguish Operational from Historical science served to “successfully entangle Satan’s lies with the scientific truth.” Such attitudes continue in the online world, where the 144 character limit in Twitter-land seems tailor made for glib superficiality. During an exchange I had with creationist Joseph O’Lear on Twitter in April 2015, for example, he summarily flicked aside science topics like the reptile-mammal transition with repeated links to his own short posting, O’Lear (2014), which characterized the regular science work (that he showed no inclination whatsoever to investigate) that did not follow this Operational/Historical distinction was but a “putrid looking mess.” And so do antievolutionists use the Historical science trope as a handy slide to move them as far from the data as possible, rescuing their neurons from the potentially exhausting process of actually studying something.

If one wants to get really technical about things, though, a lot of “observational” science involves theoretical contexts (you don’t actually “see” protons, or “observe” distant stars as they are *at the time*

of their observation, for example, but rely on inferences that the instrument readings or photographic plate represents something real beyond the researcher's literal grasp). The implications of deductive versus inductive reasoning, and related methodological concerns that crop up when antievolutionism takes up science (including Thaxton's pseudoscientific open mindedness about Velikovskian catastrophism), but for the moment I am reminded of the old Thoreau jibe that "Some circumstantial evidence is very strong, as when you find a trout in the milk."

The Ohio antievolutionists were resolved to redefine what "science" meant in another way. *SEAO* (2003) argued how the **TTC** approach could avoid "thorny questions like evolution vs. design and traditional science vs. naturalism," which coyly presupposed there was some brand of "traditional science" out there that had been doing something notably distinct from "naturalism."

The former standard was succinct on how *natural* figured in what science does: "Recognize that scientific knowledge is limited to natural explanations for natural phenomena based on evidence from our senses or technological extensions." But that first "natural" was an objectionable impediment in the covertly theistic perspective of Calvert and Lattimer, and in their October replacement Michael Cochran, Deborah Owens-Fink and James Turner had more wording minus one: "Recognize that science is a systematic method of continuing investigation, based on observation, hypothesis testing, measurement, experimentation, and theory building, which leads to more adequate explanations of natural phenomena."

The omission of one "natural" while retaining the other was no mere quibble, as one can read much the same targeted definition of science in the YEC textbook *Exploring Creation With General Science*, Jay Wile (2000, 426): "A branch of study dedicated to the accumulation and classification of observable facts in order to formulate general laws about the natural world."

As Creation Science has been around long enough to have refined their educational boundaries, it is instructive to notice how in the same *General Science* volume Wile illustrated how this amended "scientific method" could be applied to *any* subject. Choosing (surprise!) Christianity and Messianic prophecies (one can imagine comparable applications for "scientists" writing in Delhi or Tehran), Wile (2000, 50-55) reviewed such resources as Ezekiel's prophecies and Josh McDowell's *Evidence that Demands a Verdict* to confidently conclude "that there is evidence for the hypothesis that the Bible is the Word of God" (as opposed to competitors in Delhi or Tehran who might reach differing certainties off in their corners of the "natural world"). Just to warn you, though, McDowell (1972) happens to be a work whose analytical proficiency is on a par with Nostradamus prophecy mongering, as noted in **Chapter 6** of Downard (2004), which should give you some idea of just what range of "scientific" conclusions can embellish a *General Science* textbook once that other inconvenient "natural" is pried loose.

In a similar vein, objecting to the judge in *McLean v. Arkansas* ruling "that an account of life's origin which postulates a Divine Creator is not scientific," Hank Hanegraaff (2005g) illustrated what "observable" means in his creationist context:

It's ironic that in an age of scientific enlightenment, skeptics still claim that science deals with what is observable while theology only deals with what is unobservable—especially in light of the fact that we can't even explain what science is in the first place. Not only this, but much of what is being touted today as science isn't really observable at all—things like quarks, electromagnetic fields, and even the evolving big bang theory. In fact, if we're to consider only what is observable to be scientific, we'd still be saying that the earth is flat.

Truth is, God Himself bases his own integrity upon certain scientific premises (e.g., Jer. 31:35-37). For instance: the fact that Christ rose from the dead is testable and verifiable. To prove that he rose bodily, Jesus said to his disciples, see, touch, and eat

with me (Luke 24:36-42; John 20:24-31; 1 John 1:1-4).

The point is, the Bible and science are neither mutually exclusive nor contradictory—they fit together like hand and glove.

And what does Jeremiah 31:35-37 say about “scientific premises” back in the Old Testament? Here’s the King James Version:

35 Thus saith the Lord, which giveth the sun for a light by day, *and* the ordinances of the moon and of the stars for a light by night, which divideth the sea when the waves thereof roar; The Lord of hosts *is* his name:

36 If those ordinances depart from me, saith the Lord, *then* the seed of Israel also shall cease from being a nation before me for ever.

37 Thus saith the Lord; if heaven above can be measured, and the foundations of the earth searched out beneath, I will also cast off all the seed of Israel for all that they have done, saith the Lord.

Clearer now?

So, a poetic Bible exhortation by the “weeping prophet” intended to buck up the faithful in a time of supreme national crisis (King Josiah’s attempts to steer the realm away from the apostate idolatry of his predecessors didn’t prevent Nebuchadnezzar II destroying the Temple in 587 BCE) by saying how the Lord would stand by the people of Israel so long as the sun shines, the moon and stars shunt along at night, and the waves slosh, relates somehow to the scientific study and nature of stars, orbiting celestial bodies, and the aggregate behavior of water molecules in motion under the application of tidal gravity?

Indeed, the third verse sounds suspiciously like the opposite of scientific curiosity: the Lord laying down a dare line that modern science has more than significantly stepped across. Either the heavens are so immeasurable and the “foundations of the earth” so inscrutable that no one could ever hope to discern their nature—or if they ever were found out, as science is busily doing today, this would be a trespass into the workings of the divine toy box sufficiently egregious to signal the summary withdrawal of support for Israel. Are then the deep space snaps of the Hubble telescope and seismic probes of the lower mantle some eschatological offenses that might be cause for why the Israeli-Palestinian dispute has heated up so much lately?

As strained as Hanegraaff’s summary invocation of Jeremiah was, his application of *observation* was even more problematic. The notion that electromagnetic fields aren’t “observable” because you don’t see them within the spectrum open to our limited human vision (you most certainly can *observe* and *measure* them quite precisely with other instruments constructed for that purpose) while reading the visible light reflections of ink spots recording the uncorroborated assertion of a purported historical occurrence (Jesus’ resurrected body) are somehow objective in a way the electromagnetic spectrum isn’t (or the visible light observations of the ink sequences recounting events in the Book of Mormon are apparently not, given Hanegraaff’s antipathy to the LDS) shows yet another way in which “testable and verifiable” could play out if the sectarian creationist version of science ever gets entry into the public school system.

1.7 Section 12: Taking “Critical Analysis” Seriously II—Baillieul vets the 2004 Ohio recommendations

The critics of evolution in Ohio and Georgia did not close up shop after their 2002 mini-triumphs. They continued to press for revisions in the science standards to further nudge them in the desired direction, and Intelligent Design proponents like Paul Nesselroade (2004) at *The Wedge Update* continued to play off this activity to advance their own non-advancing niche. There was a body of teachers ready to accommodate this: 31% of Ohio teachers planned to give some coverage to ID or

creationism in their classes according to Bilica & Skoog (2004), though how much of that represented a shift in opinion due to the ID campaign was unclear, given that such numbers were fairly typical nationally for creationism-friendly teachers. In any event, a new lesson plan building on the SEAO foundation ended up as a full official proposal for Ohio, *Ohio Department of Education* (2004), a discretely worded exhortation “to critically analyze five different aspects of evolutionary theory” (homology, the fossil record, antibiotic resistance, peppered moths and endosymbiosis) that avoided even the term Intelligent Design to keep things ever so scientific—except for the fact that the recommended print resources represented the ID position and the website resources waded into YEC, *Ohio Citizens for Science* (2004a-c).

The standard set a benchmark for students to “Evaluate the reliability and credibility of sources,” *Ohio Department of Education* (2004, 319-320), with an explicit disclaimer that the OBE offered no “endorsement” for any of the content lurking in the listed resources. But the structure of the lessons pressed a thumb down on the scale to give undo weight to one side as they offered “Brief Challenging Sample” responses, *Ohio Department of Education* (2004, 326-328).

It was noted that “some scientists” disputed homology, for instance, and that a “growing number of scientists now question that *Archaeopteryx* and other transitional fossils really are transitional forms.” But who those “some” were remained unidentified. One could surmise they had Denton (1985) and Wells (2000a) in mind, as these were the only authors on their bibliography who could be fairly characterized as having that opinion—but that’s a far cry from a “growing number” of scientists who would have needed to have defined what transitional forms would have looked like and reevaluated the full body of evidence accordingly. Those two happened to be non-paleontologists who scrupulously avoided doing that essential taxonomic task, and so were only declaring their own personal incredulity.

To explain why the “some” didn’t know what they were talking about would involve diving into technical literature and reprising the history of scientific development on a scale that might not be within the comfort zone of a lot of students or teachers at the 10th grade level, as readers may well see when I get around to those topics in the chapters to come. But recall section 1.3 above on just Punctuated Equilibrium—that is the level of investigative detail that has to be engaged when it comes to properly evaluating “the reliability and credibility of sources” in this area. To ask students or teachers to have to recapitulate the study of decades in a high school science context is to threaten to burden them with (to borrow from Dawkins) “a gratuitous waste of precious time.”

Nor is this issue unique to science. Exactly the same problems arise if instruction has to justify fundamental issues of history or health education—especially if the standards are skewed to give a leg up to interest groups that couldn’t earn their way onto the field the normal way (from ancient astronaut believers to vaccination skeptics), but are brought into the education game by political allies who specially rewrite the rules to include them and will raise a fuss should anybody challenge their credibility. In a most fundamental way, the evolution education issue is just the tip of a very contentious iceberg whose dangerous exposed edges may be found ready to sink domestic tranquility all over the culture.

While the design camp did not demonstrate by example how open they were to really evaluating “the reliability and credibility” of who was citing what beyond the ID curtain, *Ohio Citizens for Science* (2004a-c) and Baillieul *et al.* (2004a-c) were not so circumspect. The content owed a lot to Wells’ *Icons of Evolution* and Denton’s *Evolution: A Theory in Crisis*, both sources sufficiently flawed factually to question their prominence as yet more “gratuitous waste of precious time.” But it didn’t take a lot of time before geologist Thomas Baillieul found basic methodological problems when he checked on the remaining listed books and articles:

Many of the cited references are not readily available to teachers or students. For example, *Principles of Numerical Taxonomy* by Sokal and Sneath is over 40 years old and

out-of-print. Being a college-level text on the advanced statistical treatment of taxonomic data, it is also far beyond the level of 10th Grade Biology. Also, having been written in 1963, it contains essentially no information on the burgeoning field of genetic homology. Several of the references are incorrectly or incompletely cited, making a search for the original article more difficult. This indicated also that the author of the lesson plan never actually read the articles in question, but simply copied the citations (with their encumbent errors) from another source. I used my AAAS membership to access the on-line archives of *Science*, and EBSCOHost through the Columbus Library System (as recommended in the lesson) to find other journal articles. In spite of these resources, I still needed to call upon university colleagues to find copies of the older *Natural History and Biological Journal of the Linnean Society* articles. If I had difficulty in locating references with a reasonably diligent search, then it is unfair to think that a 10th Grade Biology teacher in rural Ohio will have better success. *Baillieul (2004a)*.

Things were no better regarding the website resources being recommended for the new Ohio standards. Some of the technical links were satisfactory, but because they were aimed at college level shoptalk would have been largely unintelligible unless you were more grounded in the subject than 10th grade students were likely to be. It's the reason why junior high school students aren't trundled off to college right then and there—there are basics of terminology and technique you have to get acclimated to first.

Of far greater concern were the easily readable ones, such as *Access Research Network* or the website operated by Richard Milton offered among resources for the "Homology" section ((Milton brings an especially big wince for me, as the exploration of Milton's amazing range of dumb statements in the chapters to come earn him the accolade of "Poster Child for Scholarly Incompetence"). Or the explicitly Christian apologetics of *Apologetics Press* and *Answers in Genesis* cropping up apropos "Antibiotic resistance." *AiG*, *ICR* and *ARN* appeared concerning "Peppered Moths" (a case of observed natural adaptation that will be covered fully next chapter as an especially fine illustration of the inadequacies of antievolutionary secondary apologetics) and *AiG* bobbed up again under the "Spontaneous generation + evolution" topic. In the "Fossil record" department, the fine *American Geological Institute* website rubbed shoulders with the creationist *Christian Answers*—though nothing apart from supreme *Kulturkampf* straw-grasping could have explained the inclusion of the *freerepublic.com* discussion site ("A Conservative News Forum") having no imaginable relevance for serious paleontology research (or any other science topic) at any level.

If the idea was to suggest problems with evolutionary theory, one particularly odd instance of a specific technical Internet reference was a link to McFadden (1999) on the endosymbiotic origin of chloroplasts in plant cells. Perfectly fine work, as it happened, which Baillieul regarded as rather too technical for a high school science class—and which would only have reminded any student reader of how biologists were working out the natural origins of complex plant cellular systems without the slightest deference to design theory.

The 2004 Ohio recommendations represented yet another example of the parasitical citation addiction that occupies so much of antievolutionary science evidence "scholarship," a methodological mess that illustrated yet again the pitfalls of what happens when motivated creationists get their hands on science pedagogy:

A major element of this controversial lesson plan is for 10th Grade Biology students, with minimal guidance, to seek out sources of information and "evidence" to one of the two sides proposed for each aspect of evolutionary theory. The cited references for each of the aspects have been shown to be either: out of date for discussion of current

topics in evolutionary biology; out-of-print; inaccurate in their content; not pertinent to the stated topic; containing material at too high a level of complexity for introductory high school student use; or not readily available to students and teachers. Given the limited choice of options available to find reference material, most students will seek to obtain their “evidence” from the Internet. *Baillieul (2004b)*.

And this was the farrago that William Dembski (2006c, 84) glibly characterized as “the decision by the Ohio board of education to permit weaknesses and criticisms of evolutionary theory to be taught” (without any discussion of any of the details, of course) and pegged this as one of three “recent notable ‘scores’ for the ID movement” (the other two being a PBS showing of the ID video *Unlocking the Mystery of Life* and the publication of Gonzalez & Richards’ anthropic argument book, *The Privileged Planet*). With that one had at least a clearer heuristic as to what Dembski considered *notable*.

Alas, Dembski’s hurrah was a tad premature, for although Cochran and Owens-Fink continued to press for an ID slant in the standards, the “critically analyze” buzzword was ultimately removed, Branch (2006a-b). This turn of events prompted Chicago pastor Mark Begin (2006) to decry this embrace of the “junk science” represented by “dogmatic evolution” for *World* magazine, while Rudoren (2006) quoted the *DI*’s John West fulminating that “It’s an outrageous slap in the face to the citizens of Ohio.”

By then the standards debate had become a campaign issue, Tara C. Smith (2006b). Scientists weren’t too happy after Owens-Fink dismissed the *National Academy of Sciences* as “a group of so-called scientists.” Though this wasn’t so hyperbolically offensive as creationist Robert Bowie Johnson (2012) characterizing the *National Academy of Sciences* as “a hierarchy of morons,” it still didn’t bode well as a local social icebreaker, and Cornelia Dean (2006) noted many of the Ohio scientists who Owens-Fink had been ignoring over the years came out to endorse her opponent. More than just scientists appeared to have been moved to action, though: apparently unphased by their public face-slapping, West’s “citizens of Ohio” voted Owens-Fink out of office by a wide margin that November, MacNeill (2006).

1.7 Section 13: Applied Intelligent Design IV—Texas textbook wars (enter Don McLeroy)

The Ohio affair represented antievolutionist action at the standards level, trying to steer young minds in the desired direction by carefully worded rudders and supplementary bibliographies. Another venue for activism involved affecting what information students might be exposed to at the source, through the textbooks chosen for use in a state or district’s schools.

School textbook adoption has always been a potentially contentious minefield, given the many interest groups itching to politicize things, from the multicultural Left angling for politically correct purity (example: populace and diverse California) to *Kulturkampf* warriors on the Right (example: the burbling cauldron of populist Texas), surveyed by *Fordham Institute* (2004). The *Fordham Institute* report spotted several soft spots in the methodology, from the dumbing down of content for vacuous “readability” to something physicist Richard Feynman criticized way back in the 1960s when he participated in reviewing the procedures: lazy evaluators farming out their homework to external readers, instead of diving into the content for themselves. But even a reformed system relying less on centralized committee decisions and getting closer to working teachers in the community will still hit the snag that genuinely fair history books and insightful fiction and poetry will inevitably affront the sensibilities of some ideologues Left or Right, while rigorous science texts are never going to be uncontroversial so long as they insist on unapologetically using the dreaded E-word of *Evolution* or specifying too many zeroes in the age of rocks when they address living biology and its geological and paleontological underpinnings.

For many years in Texas, grassroots activists Mel Gabler (1915-2004) and Norma Gabler (1923-2007) wielded an enormous influence on textbooks, ferreting out what they perceived as liberal anti-American

bias and scientific inaccuracies (particularly evolution), a tradition that has not abated, Valerie Strauss (2014). Because textbook publishers couldn't afford to produce a special edition just for the Texas market, what was taught (or not) in Texas became a *de facto* standard for schoolbooks nationally, Scott (2009b) and Gail Collins (2012a-b). Although the Texas legislature reined in some of the Board of Education's power over textbook selection in 1995 (with only marginal impact), the highly politicized TBOE membership remained favorably disposed to the Gablers' work, passing a resolution in 1999 honoring their decades of textbook scrutiny, Matsumura (1999a)—more on the Gablers and their creationist proclivities in **Chapter 2**

In 2003 antievolutionists in the legislature tried to restore the Board's former authority via **House Bill 1172**, Madden *et al.* (2003), and **House Bill 1447**, Howard *et al.* (2003)—both failed. But by then local Texas creationist Mark Ramsay had entered the fray to lobby for textbook revision with *Texans for Better Science Education* (already encountered in section 1.3 above regarding P-E potshots), a spin-off from his *Greater Houston Creation Association*. Schafersman (2005) noted where Ramsay was coming from by quoting from the *GHCA*'s 1996 credo:

God's world must always agree with God's Word, because the Creator of the one is the Author of the other. Thus, where physical evidences from the creation may be used to confirm the Bible, these evidences must never be used to correct or interpret the Bible. The written Word must take priority in the event of any apparent conflict.

While the parent group continued to channel the *ICR/AiG* biblically literal Flood Geology worldview, such as *Greater Houston Creation Association* (2009), the targeted *Texans for Better Science Education* dusted off the *Edwards v. Aguillard*-era academic freedom approach to discrediting evolution by instructional jujitsu: present those *strengths* and *weaknesses* (though in practice it was hard to detect where advocates of this tactic ever allowed for evolution to have any "strengths"). And there were more than enough creationist players on the TBOE to carry that sanitized ball: David Bradley, Terri Leo, Gail Lowe and Don McLeroy.

Add one more player: the *Discovery Institute* was also ready to flex its lobbying muscle regarding its own oh-so-carefully selected portfolio of "teach the controversy" evidence against evolution. *Discovery Institute* (2003a) submitted a textbook analysis to the TBOE that was just another gloss on the unavoidable Wells (2000a), critiqued by Gishlick (2003) and Schafersman (2003). They also fielded two witnesses, Baylor University professor Francis Beckwith and *DI* Fellow Ray Bohlin, to repeat the *Icons of Evolution* talking points yet again, as recounted in Bohlin (2003). Skip Evans (2003) offered a less flattering assessment for the *NCSE*, while general press coverage avoided details in favor of brief quotes from the contending camps, such as Frazier (2003), Chavez (2003), *Houston Chronicle* (2003) and Maguire (2003).

Following a well-trod path that the defenders of creationism had worn fifteen years before in *Edwards v. Aguillard*, where their arguments must be seen as fully scientific and not even a smidge religious because they had edited out any allusions to religious personages or doctrines, the *Discovery Institute* (2003b) put their shovels in to deepen the trench further: their "effort to empirically detect" the Intelligent Design interventions of the (purposefully unidentified) intelligent designer were utterly separate from the Genesis-driven creationists that they certainly were not, given how they weren't quoting scripture, at least while wearing their ID nametag for public photo sessions.

Discovery Institute (2003c) particularly singled out a *CNN* report for, as the *DI*'s John West put it, "depicting the textbook controversy as a battle between extremist Bible-thumpers and the defenders of evolution and even claiming that critics of the textbooks believe that 'the Bible takes precedence over science.'" (Hear that, Mark Ramsay?) As for the *Discovery Institute* contribution to the Texas textbook debate:

There was testimony from three people who urged the Board to improve textbook coverage of evolution. But none of them talked about the Bible, and none of them advocated the inclusion of creationism in textbooks. Instead, they focused on increasing the coverage of evolutionary theory to include scientific criticisms that appear in peer-reviewed journals.

Two of the witnesses talked about the following:

- Dr. Francis Beckwith, a professor at Baylor University, presented the Board with a letter from 22 faculty members at Texas universities who urged Board members to make sure the biology textbooks they adopt cover both the strengths and weaknesses of evolutionary theory.
- Discovery Institute Fellow Ray Bohlin, from Richmond, Texas, discussed some scientific weaknesses of evolutionary theory not covered in most textbooks and presented the Board with a statement from 100 scientists challenging the neo-Darwinian claim that natural selection acting on random mutations is sufficient for explaining the complexity of life. Dr. Bohlin holds a Ph.D. in Molecular and Cell Biology, and MS in Population Genetics, and a BS in Zoology.

And thus did Texas get yet one more rerun of the *Icons of Evolution* show, this time with an even more developed popularity contest attached as trailer: we found “22 faculty members” and “100 scientists” who agree with us, and that can stand in for the nonexistent technical literature establishing Intelligent Design’s case among the much tougher audience of the scientific community at large. Signaling some expedient styling skills when it came to authority quoting, the Schaefer *et al.* (2002) list of 100 was apparently trimmed to some “40 Texas Scientists Skeptical of Darwin” offered by *Discovery Institute* (2003d).

When the Discovery Institute had fielded their list of 52 Ohio scientists favoring “Academic Freedom,” Patricia Princehouse (a philosophy professor at Case Western Reserve University who had organized the competing *Ohio Citizens for Science* petition) had “suggested some of the scientists signing the Intelligent Design petition may have been misled” by its carefully worded appeal, Amanda Onion (2002). But the Kansas II collection went beyond that, to direct hijacking: Martin Poenie—and the hijackee was not amused. As Hillis & Poenie (2003) explained in a joint letter to the TBOE:

The other of us (Poenie) was listed by the Discovery Institute as one of the Texas scientists on their “40 Texas Scientists Skeptical of Darwin” list (although he did not authorize the DI to include him on the list). Poenie did write a letter to the state board arguing that Darwinian (hyperdarwinian) mechanisms are not the only ones molding the evolutionary history of life and that we should be free to consider alternative non-darwinian mechanisms of change. However, that letter was not intended to oppose basic evolutionary biology or to support poor teaching or coverage of that topic.

This will not be the only time that scientists who express legitimate caveats about this or that aspect of evolution will find themselves dragooned into the antievolution campaign (waylaid both by creationists and Intelligent Design advocates). Poenie happened to be alerted to the maneuver, though, and was able to promptly call the miscreants to account. In the way of things among lazy secondary “scholarship,” the Schaefer *et al.* (2002) list continues to make the Internet rounds with Poenie’s name still erroneously attached, such as at the *National Association for Objectivity in Science* website (mentioned above in the Ohio case).

Another problem arises with the *DI*’s “statement from 100 scientists.” Spurred on by the attention

PBS' *Evolution* series got in 2001, the *Discovery Institute* set about gathering as many names on it as they could, growing over the years until it runs to over a thousand signatories, Mark Edwards (2001f), *Discovery Institute* (2007; 2010a; 2011g), and which critics of evolution love to point to as signs of the crumbling edifice of Darwinism. But just how representative are its signatories of informed scientific dissent? The ever-ballooning "Dissent from Darwinism" compendium represents less a genuine groundswell of doubt about the scientific merits of Darwinism from the people doing the work (paleontologists, geneticists and so on) than an artful corralling of the choir, drawing on a population of credentialed academics all too often marvelously far from the fray (engineers, physicians, veterinarians, philosophers and such) who appear to have been disinclined to evolutionary thinking on religious or ideological grounds long before ever appending their names to the *DI* list.

That would include Ray Bohlin, along with full YEC creationists like biologists Joseph Francis, L. James Gibson and Timothy Standish, physicist John Baumgardner, neuroscientist David DeWitt, and Matti Leisola at the "Laboratory of Bioprocess Engineering" in Finland, which highlights how being a Darwin dissenter is no guarantee that the scientist in question doesn't have some peculiar baggage in tow that may call into question their suitability for the disinterested witness list. The core drivers of the campaign also involved a fairly small body of activists—Behe, Dembski, and Walter Bradley were among the nine signatories to Schaefer *et al.* (2002) who were carryovers from Bocarsly *et al.* (1993), the "Ad Hoc Origins Committee: *Scientists Who Question Darwinism.*" Actually, as the *Institute for Creation Research* has many thousands of names to draw on from their PhD mailing list, in the "science by plebiscite competition" Creation Science can claim a wide lead.

For what it's worth, over 550 Texas scientists, teachers and business tech types (including three Nobel laureates: Michael Brown for medicine, chemist Johann Deisenhofer and physicist Steven Weinberg) sent a letter of their own favoring the evolutionary standards, Weinberg *et al.* (2003), stressing that, "Evolution is not a belief, a hunch, or an untested hypothesis; it has been extensively tested and repeatedly verified. Any dilution in textbooks of the overwhelming scientific evidence for evolution should sound an alarm to every parent and teacher."

Alas, no list of supporters for some proposition (no matter how short or long) means much unless it is backed up by solid research. Which returns us to that perpetually ringing methodological doorbell: who exactly decides what constitutes relevant and sufficient evidence in a scientific discipline? Antievolutionists aren't picking their ammunition out of a hat, randomly plucking papers from *Science* or *Nature* and assigning them to the "strengths" or "weaknesses" evolution bins purely to stimulate the imaginations of science students. To the contrary, pieces from the "peer-reviewed journals" are offered solely because they had acquired an apologetic patina among antievolutionists as hot stuff to use, never mind what the authors intended or whether subsequent research rendered their relevance moot—exactly what creationists had been doing for thirty years, and often with the same material. So in what respect was Intelligent Design doing anything different from that, waving "evidence" without context or follow-through?

More specifically, who among the three witnesses in Texas were up to that task of winnowing out the obsolete or apologetically motivated drivel? The invisible first witness was not mentioned in any coverage of the TBOE hearings, and unfortunately their institutional website archive tails out at 2009, so that phantom has disappeared from the scope. But the *DI* pair is another matter.

Beckwith had just been appointed an Associate Professor of Church-State Studies, Evans (2003), part of Baylor President Robert Sloan's effort to ramp the university up into a national example of religiously invigorated education. But however effective Beckwith may have been at teaching or publishing works on religion and the law, nothing in his practical background gave him special insight into evaluating the technical literature on the origin of Cambrian taxa or any of the other issues their oracle Jonathan Wells had expounded on. He certainly showed no inclination to dive into that area in his advocacy of the legal propriety of teaching Intelligent Design, such as Beckwith (2002; 2003; 2007; 2010), including his

glancing intersection with the Rod LeVake case covered below.

Nor would the finer points of the scholarly evaluation of technical literature be a major element of Beckwith's stint at Baylor. As Bill Dembski had already learned, the climate at the Christian university could be both political and chilly. After a change of administration removed his mentor Robert Sloan, his path to tenure was temporarily challenged, eliciting *Kulturkampf* outrage that the university was trading its very theological soul for the mammon of academic success.

Whenever the academic freedom of a professor is at stake the social and political context of the players is as relevant as their religion or philosophy, and the legal aspects of this can become complicated in a hurry, as noted by Ravitch (2008a) with special attention paid to the precedent set with *Bishop v. Aronov* in 1991 (where a university was held to be in its rights when they restricted a professor's interjection of his Christian perspective in his physiology course). The Bishop example figured as legal precedent in a more blatant case of classroom evangelism, *Edwards v. CA UNIV PA* (1998), along with other church-state battles over the years, such as Stern (1997) offering the American Jewish Congress' *Amici Curiae* concerns over an Alabama judge's courtroom posting of the Ten Commandments, and Waxman & Christensen (1998) defending the National Endowment for the Arts' funding rules. Groups across a wide spectrum of interests took note of the case in terms of evaluating education guidelines, from *Maricopa Community Colleges* (1998) and *University of North Carolina* (2001), to *Anti-Defamation League* (2001) and Thomas Wheeler (2001) at *The Federalist Society*. More on the *Kulturkampf* side were proponents of legislative religious freedom statutes invoking Bishop, such as Gregory Baylor (1996) testifying before Congress regarding **HJR 184** and Ron Paul (2000) proposing **HR 5078**. Meanwhile, Phillip Johnson (1992a; 1995b) alluded to the Bishop case only as kindling for his customary bonfire of materialist vanities.

The extent to which anti-religious prejudice figured in the reaction to Beckwith's dalliance with ID was murky, however. His conservative politics and pro-life views may have been the main factors, salient enough to be noted by Erin Roach (2006) for the *Baptist Press* and by a cautiously anonymous graduate student at *American Spectator* (2006). Joseph Bottum (2006) at *First Things* saw things in equally broad *Kulturkampf* terms.

Not surprisingly, the *Evolution News & Views* coverage was more ID-centric. John West (2006b-c) explicitly suggested Beckwith was under fire for his defense of the constitutionality of teaching ID (even though Beckwith didn't recommend schools actually do that), and Bruce Chapman (2006) chalked Beckwith's treatment down to a Darwinian campaign to "shut down damaging evidence as early as possible," while Robert Crowther (2007b) decried the "trampling of academic freedom at Baylor" and the university's disapproval of computer engineer Robert Marks' posting his ID research on the institutional website, further commented on by Luskin (2007I).

Incidentally, Baylor has another ID booster in organic chemist Charles Garner (2008), later signing a pro-ID letter to the Louisiana legislature supporting their antievolution efforts, Warren *et al.* (2011). By the time Denyse O'Leary (2006; 2008d) entered the picture Beckwith had been granted tenure, limiting her to high fiving Beckwith for bucking "the materialist establishment" and wagging thumbs down for Baylor's pusillanimous decline.

That political cliques at Baylor may have been overshadowing Beckwith's ID views was hinted at by Steven Plaut (2006) at David Horowitz's *FrontPage Magazine*, contrasting Beckwith's treatment by the "PC Inquisition" at Baylor with their toleration of Marc Ellis, a liberation theology advocate critical of Israeli defense policy. Along the way Plaut sported a truly sublime credulity as he specified that ID "is certainly regarded as a legitimate view worthy of consideration by a considerable number of scientists, including quite a few who are not religiously observant people at all." His web-linked evidence for this consisted of three sources: on the religious observance issue he nicked David Berlinski (1996b) secondarily from Doug Sharp's unabashedly YEC *Revolution Against Evolution* website (was Plaut a regular reader, or just an undiscerning ammo trawler?) and reminded us of his very narrow *Kulturkampf*

focus by trotting out two *WorldNet Daily* articles to supply “those considerable number of scientists.”

WorldNetDaily (2005) offered nothing more than a reprise of the *Discovery Institute* interpretation of the controversy over the publication of Stephen Meyer (2004b) in the *Proceedings of the Biological Society of Washington*. Even more tenuous was former stockbroker turned homeschooling Oregon mother Lynn Barton (2006) on “Why intelligent design will change everything” because Behe’s *Darwin’s Black Box* was supplying “the scientifically credible alternate theory” needed to make good on “the devastating critique” she had read back in 1989 in Denton’s *Evolution: A Theory in Crisis*.

The conceit that Barton could genuinely feel the pulse of a scientific revolution based on those two books was bad enough (like Robert Bork, she pegged biochemist Behe as a “microbiologist”)—then again, Behe (2006b, 40) and Unger (2015) tagged Michael Denton as a “geneticist”—but Plaut presumably had no inkling that Berlinski (and Denton if you wished to lump him in too) effectively exhausted the supply of non-religious ID advocates, or that the handful of named design luminaries in his three secondary sources (Barton alluded to the *Discovery Institute* “Dissent from Darwinism” list but name dropped no one) comprised “a considerable number of scientists” only if you didn’t take into account how many scientists there were working in the relevant fields (try tens of thousands on for size).

Kulturkampf conceptual baggage was similarly not far from the other *DI* witness in Texas, Ray Bohlin. While he may not have mentioned the Bible or creationist resources in his presentation to the TBOE, he has not been so shy in other venues. Bohlin’s activities at *Probe Ministries* were focused on creationist apologetics, and through *Probe Ministries* the connections with the seminal players was close: *Probe Ministries* was founded in 1973 by *Campus Crusade for Christ* alumni John Buell and Jim Williams, and Charles Thaxton worked there in 1980, Matzke (2009d, 389-391). Bohlin (1993b) has defended the viability of YEC positions on the age of the Earth, while partnering later as Bohlin & Milne (1998) he has been more equivocal:

Biblically, we find the young earth approach of six consecutive 24-hour days and a catastrophic universal flood to make the most sense. However we find the evidence from science for a great age for the universe and the earth to be nearly overwhelming. We just do not know how to resolve the conflict yet. Earlier, we emphasized that the age question, while certainly important, is not the primary question in the origins debate. The question of chance versus design is the foremost issue. The time frame over which God accomplished His creation is not central.

In other words, a plain reading of scripture would appear to be contradicted by the weight of physical evidence, but none of that is to be permitted to raise doubts about whether the Bible version of events was true to begin with (and risk stomping onto the biblical inerrancy minefield). So however much the Bible is not mentioned explicitly in creationist or Intelligent Design public presentations, hovering behind every issue (as seen in section 1.6 above regarding Bill Dembski and John West apropos Theistic Evolution) is a worldview that does not permit such contradictions in principle any more than would the YEC hermeneutics of Mark Ramsay (or Danny Phillips). Intelligent Design can proceed without impediment among creationists because nothing it ever proposes will be allowed to conflict with the unspoken dogmatic backdrop. Which is precisely how creationists had been operating, before *Edwards v. Aguillard*, and since.

This head-scratching bemusement allows apologists like Bohlin to dodge the question in a manner that brings into doubt how willingly they will do this on any topic that challenges the religious underpinnings of their convictions. It is an evasive tactic found in Hank Hanegraaff’s *Bible Answer Man* radio apologetics and is functionally pervasive throughout the Intelligent Design movement: let’s not divide over side issues like how many zeroes there are in the age of things, but instead embrace a

chronology free framework where we can slip design arguments in through the wide cracks of our own contrivance.

Philadelphia preacher Brian Jones (2000; 2013b) reflects this progression, weaned on YEC at the Detroit Baptist Theological Seminary and thus skeptical of *Darwin's Black Box's* insufficiently explicit affirmation of Jesus Christ (further tainted by Behe's troubling willingness to accept too much geology and evolution), but by 2013 Jones was not so willing to push believers over the age of the Earth cliff. Norman Geisler (2014) has wrapped himself in a similar hermeneutical cocoon to make his fence-straddling a bit more comfortable from the OEC side: contending that the Young Earth interpretation of Genesis is not directly justified by scripture (though not disallowed either), but that believers shouldn't concern themselves with such trifles as the chronology of creation anyway, thereby rendering the scientific data conveniently irrelevant.

Such ecumenical vagueness cannot help but spill over into the evolution issue, where creationists and ID can cross-fertilize with remarkable ease. Thus Ray Bohlin (1999) breezily included the 1974 edition of Henry Morris's *Scientific Creationism* and Duane Gish's *Evolution: The Fossils Say No!* from 1972 among the "pioneering works" in the antievolutionary parlor game of "finding the crack and exposing its weaknesses" along with the ID parade of Behe, Dembski, Denton, Johnson *et al.* Which, in a way, is all too true: there is no fundamental difference as to how ID antievolutionists approach data compared to their YEC brethren. The only distinction is that Morris and Gish do occasionally take a stand on those zeroes and thereby trip over a larger body of information than the hunkered down ID subset.

The upshot for Bohlin's credibility is this: the material in the more recent versions of their works, Morris (1985) and Gish (1995), are very bad science, explored at length in Downard (2004). Morris' claims on biology and the fossil record are superficial and inept, while Gish is arguably the most manipulative and evasive "scholar" in the entire creationist literature. Which means, whatever analytical standards Bohlin may have, clearly he regards their shoddy work as acceptable in a way he does not the mountains of evolutionary technical literature that he has seldom even approached, let alone persuasively refuted. And given his opinion of Morris and Gish, how likely is it that his critical gears might for once mesh and he examine *Icons of Evolution* with anything like a truly critical assessment of its "strengths and weaknesses"?

Another measure of how disconnected the *Discovery Institute* was with the facts on the ground concerns how the antievolutionists in the Texas legislature fitted into the picture. Wayne Christian went on to support creationist Carlos Garza on the State Board of Education, Gómez Licón (2010) and *Texas Freedom Network* (2010; 2012b), and when Todd Staples ran for lieutenant governor in 2013 (having moved on to become Agriculture Commissioner) he joined the other three Republican candidates in supporting teaching "creationism" in schools, decrying the evolution only approach as a brand of "political correctness." Competing candidate Jerry Patterson (Land Commissioner) subsequently backed off a mite, clarifying that he thought creationism should be taught in social studies classes concerning comparative religion, not in science class, Garrett (2013a-b). In these cases the term "Intelligent Design" was showing no particular currency.

Beyond evolutionary theory, the decidedly *Kulturkampf* milieu of the Texas antievolutionists has not been hard to spot either. 40% of the sponsors of **House Bill 1287** in 2007 (establishing elective courses to study the Bible in public schools) had also backed the **HB 1447** Board of Education revision in 2003, Chisum *et al.* (2007) and Howard *et al.* (2003). **HB 1287** was so vaguely worded that it opened the door for more than just an academic discussion of the cultural import of Bible stories, with some courses diving off the eschatological board into instruction on End Times prophecy and unconstitutional affirmations of Biblical truth, Kamisar (2013) and *Huffington Post* (2013b) reacting to the study by Chancey (2013a)—more on that in later chapters.

Opposition to liberal abortion laws was salient in the group, and has continued unabated. Rep.

Dwayne Bohac's campaign earned a Truth-O-Meter slot at *PolitiFact* (2010) for falsely accusing *Annie's List* (a liberal Texas group devoted to electing pro-choice Democratic women) of supporting "third-trimester abortion on demand," while Rep. Jodie Laubenberg's role in a "surge" of successful Pro-Life abortion restrictions nationwide was highlighted in Pitts (2014) for *World Magazine*.

Rep. Dan Flynn has repeatedly raised the alarm about banning any use of Islamic Sharia Law in Texas (another of those solutions in search of a problem), *Texas Freedom Network* (2013a), and Rep. Debbie Riddle gained notoriety when she claimed without a drop of evidence in a *CNN* interview that some of the children of undocumented immigrants were "little terrorists, who will then come back to the U.S. and do us harm," Sanchez (2010). Riddle later thought teachers could circumvent the ban on sectarian prayers in public schools by having students "read from the book of Proverbs from the Bible" instead, Sherman (2012). "As for other religions," Riddle insisted with insouciant indifference to the devotional toes of people outside her pew, "the wisdom won't do them any harm."

Many of the **HB 1172/1447** backers filtered onto Texas Tea Party terrain, such as Ken Paxton and Robert Talton attending a candidate event in 2014 noted by Pastor Greg Young, a Young Earth Creationist who also offered to educate the flock in a course on topics from "A Biblical View of History, Law and Government" to "The Crisis of the Constitution from Biblical Absolutes to Evolutionary Humanism." When not fuming on the iniquities of the Obama administration, Young's podcast shows reflect such *Answers in Genesis* authority as "Dr Georgia Purdom a leading Macro biologist," Greg Young (2014a-b). We'll be examining Georgia Purdom's expertise in due course.

1.7 Section 14: Applied Intelligent Design V—Witness for the Prosecution miscued at Kansas II

In 2004 antievolutionists regained a 6-4 majority on the Kansas State Board of Education (KSBE) and set up a 25-member committee to revise the state's science standards, with eight of their camp on it, including William Harris, physician Tim Crater, retired high school biology teacher Greg Lassey, and a group with no subsequent discernable trail: Rick Reeser, Wayne Stringer, Dick Unruh, and John Yost. What would be the core reason for the acrimonious dispute to follow turned on a profound difference of opinion on what constitutes relevant evidence when it comes to testing theoretical claims, and how examples of it are to be evaluated. While the majority of members were tackling their task of translating those precepts into a working science education standard, in December 2004 the creationist subgroup bypassed the normal procedure and submitted their own streamlined Minority Report directly to the Board, once more chronicled by local activist Jack Krebs (2005) and put in broader legal context by Kirwin (2006).

Playing a prominent role in this Kansas "Scopes II" maneuver was John Calvert's *Intelligent Design Network*, focusing by now on his one paramount issue, summarized in Calvert (2006): the "scientific materialism or methodological naturalism" that in his view is used to suppress all that "extraordinary evidence of design in living systems." The Kansas 2005 standards would likewise incorporate the wordplay of Calvert's exclusionary definition of science as a process seeking "more adequate" (but not explicitly *natural*) "explanations of natural phenomena," Kirwin (2006, 694).

The quintessential new breed of ID advocate, Calvert was by now adept at distancing ID from any public linkage to *Kulturkampf* Christian dogmatism even while addressing his message to exactly that clientele, such as stressing "the messages of DNA" in his interview with Francis Slobodnik (2006) for *Crusade* magazine, a very conservative Catholic magazine put out by "The American Society for the Defense of Tradition, Family, and Property" with articles like D'Agostino (2005), warning how the world faces "demographic suicide" as lower fertility rates and "the encroaching materialistic and hedonistic values from the apostate West" lead to a "global underpopulation" crisis.

The *Crusade Magazine* worldview is very receptive to the broader *Kulturkampf* message of Calvert's Intelligent Design: their coverage of the rise of Intelligent Design in the issue Calvert's interview appeared in was explicitly titled *Cultural Wars*, Jeremiah Wells (2006). "His main contribution to the

downfall of Western culture lay in his pretension that all life results from undirected natural causes,” Wells insisted of Darwin, dismissing the history of the theory and its scientific reception (outlined per section 1.4 above) with the facile summary: “He arrived at his fanciful ideas by 1838 and spent the next 20 years trying to prove it without much success by today’s scientific standards.”

And what “Cultural War” was *Crusade* out to fight? A reader survey showed 51% of their readers were expecting “a chastisement to the world in your lifetime” by God over mankind’s continued sinning, *Crusade Magazine* (2005b), but that 95% were sure world peace could be secured after all if only more people showed “devotion to the Immaculate Heart of Mary.” What they had in mind here was reflected in Horvat (2007) on *Fighting the Whole Cultural War*, with their cover identifying salient targets they were set to tackle once the abortion issue was resolved to their satisfaction (which they expected to be soon): **Atheism, Blasphemy, Cloning, Communism** (this as the communist theme parks were fading from history and China retooled to embrace all the most troubling aspects of a Party-run monopoly capitalism), **Contraception, Euthanasia, Free Love** (and when has *that* term been in vogue since the era of crank-start cars and speakeasies), **Immodesty, Homosexuality, Immoral Fashions** (unpack that veil and longer hemlines, ladies), **Paganism, Pornography, Promiscuity, Satanism** (there’s a groundswell popular threat for you), and **Sex Education**. Poor Evolution didn’t even make the cut this time.

However temperate and scholarly the witnesses at Kansas II might sound, discoursing on scientific evidence and freedom of inquiry, hovering out in the wings was this *Kulturkampf* worldview. How much of that would be on display would depend on how much the curtains got ruffled.

In February 2005 KSBE chairman Steve Abrams, who had rubberstamped Willis’ 1999 standards, proposed that the Board hold special hearings “focused on the areas of disagreement outlined by the majority and minority positions of the Science Writing Committee,” chaired by a special subcommittee consisting of himself and two other creationist board members, Connie Morris and Kathy Martin, and lawyer Edward Sisson on hand to interrogate any pro-evolution witnesses that might turn up. Over a dozen witnesses would be called to defend the standards—but, curiously enough, none of the people who had actually drafted the standards would be set to testify.

Meanwhile, the Kansas State Department of Education had shown some concern over Calvert’s highhandedness. After the entire scientific community declined to participate in the KSBE hearings (including Richard Dawkins), KSDE invited Topeka civil rights lawyer Pedro Irigonegaray to participate in the Board’s hearings on behalf of mainstream science education. Irigonegaray was outraged to learn that the KSBE had earmarked \$40,000 to pay for the travel expenses of witnesses: “At a time when our children’s education is at stake because we don’t even have a budget, our board was going to spend \$40,000 to conduct a debate without a purpose,” Ortega (2005).

Irigonegaray (2005) argued that the Kansas State Board of Education had given the ID advocates “special opportunities to present their proposals,” granted “lawyer John Calvert unjustified access and influence over KSBE decisions,” and “ignored the recommendations of the science writing committee Majority in favor of advancing the Minority proposals.” The stage was now set for an interesting show, with the full hearing transcripts documented at *Talk.Origins Archive* (2005a-I), which one can juxtapose with the two hour highlights DVD New Liberty Video issued a few years later, optimistically titled *Teaching Origins Objectively* (2007), which objectivity they demonstrated *in vivo* by editing out any moments that didn’t buttress ID positions.

At the hearings, Calvert and Harris deployed all the by now congealed ID talking points, that the Minority Report did not “mandate the teaching of Intelligent Design,” and that in any case ID and “teaching the arguments against evolution” were not code words for creationism. As for what criteria would be used to decide what evidence might be brought forth in this laudable pedagogical effort, none of the ID advocates set out by example how evidential relevance would be vetted (such as the troubling YEC technicalities that had derailed the 1999 standards) once the dreaded “naturalism” was dislodged as an operational paradigm.

This was no abstract issue. On the one hand, some supporters of the Kansas efforts were happy to see “alternatives” to evolution like ID to be included without ever thinking about exactly what that might be, as Jason Rosenhouse (2005a) noted of George Diepenbrock (2005). But out in the hinterlands, creationists like Chuck Missler (2005c) were still viewing Kansas II in the same YEC big picture cosmological frame as the 1999 standards. “The good news is that there is a rising awareness that Evolution is bad science,” by which Missler meant the effort “to explain the origins of the universe using Darwin’s theories.” So while Missler’s background links included two nicked secondarily from the *Discovery Institute* website—Gibson (2005) from *Fox News* and Wilgoren (2005a) in the *New York Times*—his “Evolution Study Resources” still consisted only of *ICR*, *AiG*, and Kent Hovind’s *Creation Science Evangelism*.

The steepness of the slippery slope down which the grassroots mashed together ID and creationism with ease (while other supporters looked the other way and tried not to hear the often-audible thud as they eventually hit the ground) was not on the agenda at Kansas II. Indeed, instances when witnesses veered off topic and stumbled close to the demarcation cliff were promptly reined in, such as this exchange triggered by a question from Chairman Abrams:

ABRAMS: Doctor Harris, what is the purpose of science?

HARRIS: The purpose of science? I think science is to understand the natural world.

ABRAMS: I heard you agree a few minutes ago that it was a quest of knowledge?

HARRIS: It is that as well. That’s kind of the way we get there, but the goal, I think, is to understand how the world works.

ABRAMS: Is science a search for truth?

HARRIS: Yes, regarding the natural world.

ABRAMS: Is there a difference between evolution that we can observe and evolution that we cannot see?

HARRIS: Sure, yeah. Evolution you cannot see, you don’t know is actually—again, there’s that slippery term, but we’re talking about—hypotheses about how life forms came to be if that’s what you mean by evolution and we weren’t there to see how it happened, we don’t know how it happened. We have to leave it at that.

ABRAMS: That’s commonly called microevolution, macro evolution by some?

And with that, Harris was steered back to the safe antievolutionary turf of placing a barrier between the uncontroversial observable “microevolutionary” changes and the objectionable extrapolation to broader “macro” levels. As we’ll be exploring in the chapters to come, such distinctions make no sense at all in the light of current evidence, but Harris was in even deeper trouble here as he stepped close to a precipice the Kansas antievolutionary tag team was not about to address.

Left aside was the implication of that “science is to understand the natural world” thing—not the supernatural, or transcendent verities, but the physical world where you can weigh and measure and investigate with some degree of repeatability and reliability. But in a world of incomplete evidence, how do you know when you can draw the line and say stop here, naturalistic investigation, and proceed no farther! Implicit in the design argument is the presumption that at some stage scientific discovery can lay out those boundaries, across which their natural inferences cannot transgress. Both Behe’s “irreducible complexity” and Dembski’s “specified complexity” arguments rest on exactly that foundation, as we’ll see in later chapters, but neither Harris nor any of the other witnesses at Kansas II were keen on explaining why they drew the line in the sand where they did, and not just a bit farther out to include the YEC geology and cosmology arguments that likewise depend on placing limits on natural explanations and had, after all, been incorporated into the Kansas standards in 1999 under Abrams’ own watch.

This serious methodological question of demarcation was never addressed because it fell far from the core of their concerns, as seen not only in Harris' testimony set out in *Talk.Origins Archive* (2005a) but cutting an equally wide swath as witnesses James Barham, Roger DeHart, Angus Menuge, John Millam, Warren Nord, and Jonathan Wells variously fretted over "materialism" in science, highlighted at length by critic Lenny Flank (2006a) in his online coverage of the affair at *Creation Science Debunked* (one among many ephemeral sites on this issue that has not survived the ebb and flow of Internet hosting).

Front and center in Kansas II were the *Kulturkampf* themes of philosophy and worldview, and at his first stint at bat Irigonegaray challenged Harris as to why he kept "bringing up atheism, materialism, naturalism, and humanism" when the standards the Minority Report was out to revise had made no mention of them. Harris spun a bit too tightly when he replied that the problem was that they did not mention these things, but ought to have since some scientists and philosophers took those positions and the regular standards had incorporated them on the sly—begging the question of whether these concepts belonged not to the practical working of science or secular education, but with the narrow obsessions of *Kulturkampf* antievolutionists like Harris.

For board member Kathy Martin, Intelligent Design was part of a broader "Christian agenda" for a nation she conceived of as not only Christian but fundamentally conservative just like her, and whose theology ought to be incorporated into public schools, from morality "in every class" to prayers, Ortega (2005). Similarly, Connie Morris urged her constituents to pray in support of their efforts on the board to oppose the "anti-god contempt and arrogance" represented by that "age-old fairytale" of evolution, Kirwin (2006, 692). Greg Lassey likewise showed how far removed their motives were from technical science issues when he claimed keeping the antievolution position out of the standards worked against *families* by "discrediting parents who reject materialism and the ethics and morals it fosters," *Fox News* (2007a).

Nor were Harris, Martin, Morris and Lassey atypical in this regard. For some years Hank Hanegraaff's *Bible Answer Man* had been popularizing the ID case in exactly this *Kulturkampf* manner. An August 2001 installment had him burbling how Intelligent Design promised "massive movement" in a "giant paradigm shift," and recommended every Christian should have Dembski (1999a) on their "must reading" list, a work titled *Intelligent Design: The Bridge Between Science & Theology*. As guest, Dembski was asked what the "huge" effects would be of the Intelligent Design revolution: his first and only reply was that it would affect *ethics* (so much for the reformation of microbiology or vertebrate paleontology).

Having evidently forgot that ethics is not (and cannot be) a property of anything that ID has claimed to have empirically detected (from the "irreducible complexity" of bacterial flagella to the "specified complexity" of DNA), Dembski illustrated his moralizing tunnel vision with the "promiscuous lifestyles in Hollywood" (evidently forgetting the many errant Christian evangelists caught in affairs during this period). This condition he in turn attributed to a "sovereignty of the self" that Hanegraaff agreed had pervaded psychology, business and economics because of naturalistic Darwinism, a philosophy that Dembski assured Hanegraaff's listeners was "overwhelmingly pessimistic about human possibilities."

Asked a similar question eight years later, Dembski was still not thinking in terms of technical science understanding, but how "It's going to change the national conversation" in a culture "so infused with materialistic and atheistic ideology," Devon Williams (2007).

Beyond the moralizing tone of ID philosophy, there was also a severe conceptual vagueness when it came to what evolution involved, as Harris showed when asked for a succinct definition of that "slippery term" (as he put it in his exchange with Abrams). You may recall I managed it in three words in section 1.4 above: *natural common descent*. But anything so forensically straightforward could not evade Harris' teleological misgivings as Irigonegaray continued to press him, until Harris had whittled all the back and forth of living history on Earth down to "all of life is here by chance" which in turn translated as

a rejection of God. But few would comparably contend that because Bryce Canyon in Utah or the Grand Canyon in Arizona came about by natural geological development (“by chance” if you wanted to be excessively reductionist) that this would similarly grease the skids for ruling out the existence of all deities as a philosophical position. For Harris, though, teleology and process are inseparable, welded so tight that Kansas’ workaday science standards were never going to be allowed to slip between them.

All of which was not an unexpected tack for both sides to take, but in one of the more sublime moments in the history of battling creationism, Irigonegaray made a point of quizzing Calvert & Harris’ primary scientific ID witnesses on three issues: did they believe in the common descent of life, the descent of human beings, and how old did they think the Earth was?

Pretty straightforward questions, one would think—a way to put on the record where the witnesses were coming from, scientifically and philosophically. At the very least, making it harder for a YEC creationist to hide behind the rhetorical camouflage of ID. By the end of things, hearing subcommittee member Connie Morris would characterize Irigonegaray’s approach as “abusive,” *Talk.Origins Archive* (2005k). She would express no comparable concern over some of their own witnesses’ answers to those questions.

Only two witnesses left without their responses recorded: University of North Carolina philosophy professor Warren Nord (who was not asked about the chronology issue by Irigonegaray but revealed a *Kulturkampf* scope almost as broad when he averred that America’s religious believers suffered oppression comparable to woman and blacks and recommended religious perspectives be included across the school curriculum, including in economics and maybe even mathematics classes) and Italian geneticist Giuseppe Sermonti (whose accent was apparently so impenetrable that no transcript could even be made). Although not describing himself as a creationist, Sermonti (1993) nonetheless did a good impression of one in *Creation* magazine repeating common creationist mischaracterizations of human evolution evidence, and creationists like Weigand (1992) have welcomed him into the club without caveats. Attracted to a mystic slant on science akin to Rupert Sheldrake (more on him in due course), by 2005 the *Discovery Institute* was fielding Sermoniti’s eccentric antievolutionary *oeuvres* (from basic errors on the fossil record of insects to the claim that fossil hominids were some form of degenerate humans), which Bottaro (2005) characterized as “mostly superficial, and often downright misleading, practically overwhelming the reader with an avalanche of factoids, pseudo-claims, and anecdotes.”

Of those with translatable testimony at Kansas II, all but three rejected the full common descent stuff, and especially so for human beings. Michael Behe and historian of science James Barham were ok with universal common descent, while Steve Meyer and Turkish journalist Mustafa Akyol hedged with only a “limited common descent” that might include people. Meyer also told *Fox News* that “the idea that evolution is nothing more than the idea that things change or that things have a common ancestor is false,” Gibson (2005).

Regardless of their positions, though, there was a marked frailty of curiosity when it came to thinking about how we *did* come to be here, and *when*, with witness after witness indicating they really didn’t think much about that. As for the third question, as Wilgoren (2005a) noted in the *New York Times*, and which article the *Discovery Institute* felt comfortable to repost at their website, “most agreed on 4.5 billion years.” That would include Harris himself, along with ID stalwarts like Behe, Meyer, Charles Thaxton and Jonathan Wells, to lesser-known witnesses like Akyol and Barham, molecular biologist Russell Carlson, nutritional biochemist Robert DiSilvestro, theoretical chemist John Millam, oceanographer Edward Peltzer and physician Ralph Seelke.

Incidentally, the number of molecular biologists, biochemists and chemists in this cavalcade of Darwinian skepticism (joining William Morrow in *Edwards v. Aguillard*, Denton, Behe and William Harris) brought to mind an observation by John Wilkins (2001) concerning how the genetic definition of evolution as ultimately just changes in allele frequency could accompany a dissatisfaction with

evolutionary explanations at the macro level: “Geneticists have observed in small scale a general resistance of the molecular components of the genome to change from the ‘norm’ or ‘wild type’. For this reason, if any biologist were to be anti-evolutionist, it would typically be one who works at the molecular level, such as a molecular geneticist or biochemist.”

But microevolutionary biological expertise would presumably give no hint about their opinion on the age of the Earth—that would suggest an entirely different set of philosophical presumptions, and Wilgoren did not follow up regarding the quarter of the witnesses who were less forthcoming on the “age of the Earth” question. Philosopher Angus Menuge was vaguest, *Talk.Origins Archive* (2005h), declaring he had no opinion whatsoever about the age of the planet on which he resided, a surprising (if not alarming) black void in his cognitive **Map of Time** given his professed interest in understanding the *history of science*.

Plant geneticist John Sanford (“primary inventor of the GeneGun technology”) assured Calvert that, “one can, in fact, use the methodology of science to study things without a materialistic or a naturalistic philosophy behind it,” *Talk.Origins Archive* (2005d). Although Calvert’s questioning took pains to highlight how Sanford used to be an evolutionist before departing atheism for Christianity twenty years before, there was no delving into what manner of non-evolutionary conclusions Sanford had come to since, now liberated from all that naturalistic deadweight. Not an easy thing to pin down, as it happened, evidenced when Irigonegaray’s Q&A provoked a labored round of chronological badminton:

IRIGONEGARAY: First of all, do you have a personal opinion as to what the age of the world is?

SANFORD: I do have a personal opinion.

IRIGONEGARAY: And what is that personal opinion specifically as to the age? And I’m interested only in the age, not an explanation.

SANFORD: I believe that I was wrong in my previous belief that it’s 4.5 billion years old and that it’s much younger.

IRIGONEGARAY: How old is the earth, in your opinion?

SANFORD: I cannot intelligently say how old it is except it’s much younger than I think widely believed.

IRIGONEGARAY: Give me your best estimate.

SANFORD: Less than 100,000 years old.

IRIGONEGARAY: Less than 10,000?

SANFORD: Conceivably.

IRIGONEGARAY: Conceivably less than 10,000?

SANFORD: Yes.

IRIGONEGARAY: Conceivably less than 5,000?

SANFORD: No.

IRIGONEGARAY: So it’s somewhere between 5 and 10,000 years of age?

SANFORD: Between 5 and 100,000. But I would like to—.

IRIGONEGARAY: No, I’m asking the questions.

SANFORD: Okay. You ask the questions.

IRIGONEGARAY: Do you accept the general principle of common descent, that all of life is biologically related back to the beginning of life? Yes or no?

SANFORD: No.

IRIGONEGARAY: Do you accept that human beings are related by common descent to prehomimid ancestors?

SANFORD: No.

IRIGONEGARAY: If the answer is no, as you have indicated—.

SANFORD: Uh-huh.

IRIGONEGARAY: —what is your explanation for how human—the human species came into existence?

SANFORD: My explanation, humbly offered, is that we were created by a special creation, by God.

IRIGONEGARAY: And when did that occur?

SANFORD: Relatively recent by—by—in terms of conventional wisdom. Very—very recently by conventional wisdom.

IRIGONEGARAY: Well, according to your opinion, when did that occur?

SANFORD: I'm not going to speculate on—on—.

IRIGONEGARAY: No, I'm not asking you to speculate.

SANFORD: Well, you're—.

IRIGONEGARAY: Based—please listen to my question.

SANFORD: What is my—.

IRIGONEGARAY: Based on your opinion, when did that occur?

SANFORD: It happened recently. And it's not just my opinion, it's based upon—.

IRIGONEGARAY: Sir—.

SANFORD: —analysis—.

IRIGONEGARAY: I'm not asking about recently. Do you have a date.

SANFORD: I do not have a date.

IRIGONEGARAY: Do you have an estimate of the date?

SANFORD: I do not.

IRIGONEGARAY: Less than 5,000 years ago?

SANFORD: You know, I'm not going to—you can play that game.

IRIGONEGARAY: I'm not—.

SANFORD: But I—I'm saying I don't know exactly how old it is.

IRIGONEGARAY: All right. That's fine.

SANFORD: But I do—I'm willing to tell you that I think it's considerably younger than—much younger than people are generally told.

And thus did a visible non-intersection occur between the spread of **Deep Time** and humanity's observable tracks on it (several million years as you slip back into tool-making hominids, which would be many multiples of the age of the Earth by Sanford's dead reckoning) and the considerably smaller tortucan-shrouded landscape of the co-developer of the GeneGun.

High school biology teacher Bryan Leonard visited from Ohio, where he had been similarly active in trying to revise their science standards to incorporate ID criticism of evolution, including purported problems with the fossil record, *Talk.Origins Archive* (2005e). As for the age of the earth, Irigonegaray lobbed an even less responsive shuttlecock with someone who clearly had quite confined expectations of what part he was obliged to play while onstage at the Abrams KSBE kabuki theater:

IRIGONEGARAY: All right. I have a few questions that I want to ask you for the record. First, what is your opinion as to what the age of the world is?

LEONARD: I really don't have an opinion.

IRIGONEGARAY: You have no opinion as to what the age of the world is?

LEONARD: Four to four point five billion years is what I teach my students.

IRIGONEGARAY: I'm asking what is your opinion as to what the age of the world is?

LEONARD: Um, I was asked to come out here to talk about my experiences as a high school biology teacher.

IRIGONEGARAY: I'm asking you, sir—.

LEONARD: I was not under the impression that I was asked to come out here—.

IRIGONEGARAY: I'm asking you—.

LEONARD: —talking about—.

IRIGONEGARAY: —sir, what is your personal opinion as to what the age of the world is?

LEONARD: Four—four to four point five billion years is what I teach my students, sir.

IRIGONEGARAY: That's not my question. My question is, what is your personal opinion as to what the age of the world is?

LEONARD: Again, I was under the impression to come out here and talk about my professional experience—.

IRIGONEGARAY: Is there a difference?

LEONARD: —more of—.

IRIGONEGARAY: Is there a difference between your personal opinion and what you teach students the age of the world is?

LEONARD: Four to four point five billion years is what I teach my students, sir.

IRIGONEGARAY: Is—my question is, is there a difference between your personal opinion and what you teach your students?

LEONARD: Again, you are putting a spin on the question is—you know, now I'll spin my answer, sir, to say that my opinion is irrelevant. Four to four point five billion years is what I teach my students.

Irigonegaray then moved on, having failed to extract this precious datum from the Official Intelligent Design Secrets Act envelope, but certainly illustrating the level of devotion Leonard had *in practice* to the honest and open discussion of science topics unfettered by preconceptions like naturalism. Try teaching *that* controversy in Leonard's class.

Another Ohio import was University of Akron cardiovascular physiology researcher Dan Ely, who had worked with Leonard on revising Ohio's state standards, *Talk.Origins Archive* (2005e). Ely repeated similar claims about the inadequacy of molecular estimations of animal phylogeny as Jonathan Wells had earlier, but regarding Irigonegaray's questions Ely found it even harder to veer off script than Leonard:

IRIGONEGARAY: Welcome to Kansas. I have a few questions for the record for you. First, I have a group of yes or no questions that I would like for you to answer, please. What is your opinion as to the age of the earth?

ELY: In light of time I would say most of the evidence that I see, I read and I understand points to an old age of the earth.

IRIGONEGARAY: And how old is that age?

ELY: I don't know. I just know what I read with regards to data. It looks like it's four billion years.

IRIGONEGARAY: And is that your personal opinion?

ELY: No. My personal opinion is I really don't know. I'm struggling.

IRIGONEGARAY: You're struggling with what the age of the earth is?

ELY: Yeah. Yeah. I'm not sure. There's a lot of ways to measure the age. Meteorites is one way. There's a lot of elements used. There's a lot of assumptions can be used and those assumptions can be challenged so I don't really know.

IRIGONEGARAY: What is the range that you are instructing?

ELY: I think the range we heard today, somewhere between 5,000 and four billion.

IRIGONEGARAY: You—you—you believe the earth may be as young as 5,000 years old. Is that correct?

ELY: Well, we're learning that there's such a thing as junc—.

IRIGONEGARAY: Sir, answer—.

ELY: —really has a function.

IRIGONEGARAY: Just please answer my question, sir.

ELY: We're learning a lot about micro—.

IRIGONEGARAY: Sir? Mr. Abrams, please instruct the witness to answer the question.

ABRAMS: I think—.

IRIGONEGARAY: The question was—and winking at him is not going to do you any good. Answer my question. Do you believe the earth may be as young as 5,000 years old?

ELY: It could be.

One may judge which is more troubling: a 21st century biology professor at a university unable to decide between 5000 and 4,000,000,000—or one who is so confused on the point that when asked about it can only fall back on a rote invocation of “junc” (likely the transcriptionist’s typo for *junk*) DNA and “micro” evolution, biological topics having no relevance whatsoever in determining how old a *planet* is.

When Ely returned to his efforts to do for Ohio what he advocated for Kansas, Ohio State Board of Education member Martha Wise drew on Ely’s Kansas II testimony to accuse him of creationist sympathies. This didn’t set well with Casey Luskin (2006b) at *Evolution News & Views*:

When advocating that the Board repeal the Critical Analysis of Evolution Lesson Plan, Board Member Martha K. Wise repeatedly emphasized the claim that authors of the Critical Analysis of Evolution Lesson Plan were creationists. Wise alleged that during the Kansas hearings, Dan Ely testified that he was “struggling with the age of the earth” and stated “He [Ely] thinks the earth is only Five-thousand years old. That’s not just ID. That’s young earth creationism.”

Ely’s testimony fully rebutted Wise’s misrepresentation of Ely’s viewpoint. Ely said that in Kansas, many of the witnesses were asked about their views on the age of the earth. “My answer was’ We heard today anywhere from five-thousand years to five million years or five billion years,” and everybody laughed. “And most of the evidence looks like it’s very old.” Ely called Martha Wise’s alleged explanation of Ely’s views on the age of the earth “totally erroneous.”

Incidentally, Wise openly identified herself as a creationist, stating “Remember, I’m a creationist myself. I believe in God and I believe that God created the heavens and the earth.” Yet Wise felt it important to state that Dan Ely is a “known creationist” who she even alleged is a young earth creationist. Because she believes that Ely is a creationist and helped author the critical analysis of evolution lesson plan, she listed this as the third reason that the lesson plan must be rejected. Thus according to Wise, it is permissible for creationists to advocate against critical analysis of evolution without promoting religion. But when creationists do advocate for critical analysis of evolution, they are necessarily pushing their religious views. This is despite the fact that non-creationists, such as Dr. Rick Sternberg in South Carolina, have advocated for teaching students about scientific challenges to evolution. The implication according to Wise is that creationists have fewer political rights than do non-creationists.

Similarly, Board Member Hovis stated that he wanted to see more religion in the lives of teenagers. Hovis was one of the strongest opponents of the critical analysis lesson plan. This raises the question of whether a double standard would prevent pro-critical analysis of evolution Board members from making such statements.

While a religious person may well recommend more belief for teenagers, it is by no means

inconsistent for them also to be leery of injecting that religious enthusiasm into *science classes*, a distinction evidently lost on Luskin. And while a charitable interpretation of Ely's part in all this might be that Ely had some difficulty recalling what Ely thought or said, Luskin's spin was more evasive given Ely's testimony quoted above concerning his "struggling" with the age of the Earth. Invoking Sternberg for some further credibility by association depends in turn on whether Sternberg's treatment of the data was any better, but that still doesn't let Luskin off the hook when it comes to gauging Ely's expertise.

Around the time Luskin was burnishing Ely's profile, several of Ely's fellow faculty members (evolutionary ecologists Stephen Weeks and Peter Niewiarowski, and paleontologist Lisa Park) took issue with Ely's claimed proficiency concerning genetic evidence in a letter to the Kansas School Board, Hayes (2006a-b). In their view, Ely's technical work had no bearing on evolutionary taxonomy and "it is abundantly clear that Dr. Ely has a poor understanding of evolutionary biology."

1.7 Section 15: Martyrs for Design—Nancy Bryson and Roger DeHart testify at Kansas II

Not all of the Kansas II witnesses were called on to testify on the Minority Report revisions directly. Chemist Nancy Bryson, for example, traveled to Kansas as an example of persecution (she left the Mississippi University for Women after delivering an antievolutionary seminar), with the *American Family Association* weighing in on her case, *Talk.Origins Archive* (2005g), reprising an earlier appearance before the Texas State Board of Education, Keller (2003). But this time she had her Irigonegaray moment, indicating she was "undecided" on the age of the Earth but gave as her "best range" estimate "Anywhere from 4.5 billion years to ten thousand years."

Creationist invocations of the Bryson case have ranged quite far afield, all the way to Victoria Clark (2006) on the Australia staff of *The Epoch Times* (a Chinese-American magazine devoted mainly to criticizing abuses in the PRC). At *Hallee the Homemaker* (2010n) husband Gregg included the Bryson case among the reams of creationist claims he repeats at his wife's website—likewise for Christopher Johnson (2011a) of *Creation Liberty Evangelism*, sandwiched in between complaints about modern astrophysics (from the Big Bang to the formation of heavier elements) and objecting "that evolution is a religion by definition, not part of science." For *Answers in Genesis* (2003), this "sad story of personal attacks, dirty politics, anti-creationist discrimination, apparent hypocrisy and backpedaling" occurred solely because Bryson had "covered some of the most popular arguments against evolution, such as the lack of 'transitional' fossils and the profound lack of evidence for chemical evolution." Thompson & Harrub (2003h) were more oblique, saying only that she had "presented alternative views of origins (including intelligent design)"—which is also how *CreationWiki* (2010g) described it, with Thompson & Harrub among their limited sources. Casey Luskin (2014o) joined the parade in his complaints about Neil de Grasse Tyson's reboot of Carl Sagan's *Cosmos* series, briefly noting Bryson in a listing of persecuted Darwin critics (but did not mention her Kansas II testimony nor details about her criticism of evolution).

As to what had actually *happened*, all of the antievolutionist accounts (from short to long) simply repeated Bryson's version of her experience—which, come to think of it, is what Bryson had done with her own sources. We can know that because of an interview Bryson (2003) gave that was more specific than her testimony at Kansas II on what she had taught and her resources underpinning it:

In the 1990s I had read books by Phillip Johnson and Michael Behe that had persuaded me that evolution is far from being a "fact". A major article in the December 2001 *Chronicle of Higher Education* had covered the Intelligent Design movement in universities. I shared this article Spring 2002 with my supervisor, Vice President of Academic Affairs Dr. Vagn Hansen. I had suggested that a course outlining flaws in the neo-Darwinian synthesis and describing ID as an alternative view might work well as a distance learning offering (The VPAA was wanting MUW to establish a position in the d.I.

market). Dr. Hansen was unreceptive. Dismissive, in fact.

Anxious for an avenue to discuss an interest of mine, I volunteered in Oct. 02 to make an Honors Forum presentation. The talk occurred Thurs Feb 20. I told the audience of around 50 that one of my objectives was to introduce them to some “contrarian” thinking about evolution by highly-credentialed academicians. I discussed the nonexistence of evidence for chemical (prebiotic) evolution, the “Haeckel’s embryos fraud” from developmental biology, evolution-disconfirming evidence from paleontology (the Cambrian explosion), and the subjectivity of paleoanthropology in its interpretation of the place of human-like fossil skulls in “human evolution”. I went on to point out that the General Biology text we use here at MUW greatly misleads students by presenting false “evidence” for evolution and by ignoring the overwhelming disconfirming evidence.

I closed in introducing ID by reading a most discourteous, not to mention *ignorant*, quote about the developing area from a recent issue of *Scientific American*. I continued with a description of the ID movement from perhaps its most prominent proponent, William Dembski. I pointed out that intelligent design had great scientific currency throughout history up until the rise of uniformitarianism (Lyell and Darwin) in the mid-nineteenth century. I finished with quotes from contemporary philosophers of science who question whether restricting science to methodological naturalism does anything but *limit* its truth-finding mission.

At the conclusion of the talk, senior professor of biology Dr. William Parker asked to speak. I said “sure”. He rose and read a 4-to-5 minute *prepared* diatribe against me and my talk. He said I was unqualified to speak on the subject of evolution and said the presentation was “religion masquerading as science”. When I asked him to identify even one incorrect statement I had made, he could not. An assistant professor of biology (Parker’s protégé) made a similar protest. Again, she was unable to find any error in my talk. The students were uniformly supportive and enthusiastic about the talk, at least a dozen coming up afterwards to thank me. In the written evaluation of my talk given by the Honors Forum director, all responding students (low 20’s) said they enjoyed my talk, and expressed disapproval of Parker’s behavior.

The next morning, a Friday, a congratulatory email from a freshman biology major had been sent to me and copied to others on the science/math student list serve. It was followed by an email also sent out on the list serve, and copied to the VPAA, by Dr. Parker. His email contained untruths and is, I believe, actionable. None of the life sciences faculty, him included, have credentials as evolutionary biologists.

Some initial observations: it takes 4-5 minutes to read aloud only a couple pages of text, so Parker’s response could not have been especially long. Given that Bryson’s interview later noted her interest in “Christian apologetics” was known to her colleagues from the time she arrived on campus, and that she had signaled her special focus on the antievolution issue through the McMurtrie (2001) article over a year before the seminar, Parker would have had ample time to become concerned about what Bryson proposed to discuss at her seminar.

As for Bryson’s swipe at Parker’s proficiency, his emeritus home page Parker (2007) at the Mississippi University for Women listed dozens of his published papers on reptiles (lizards, snakes and turtles) including their ecology, biology and systematics. Apparently hard work at the ground floor of evolutionary biology was invisible to Bryson, flying high as she was through the Olympian clouds of Intelligent Design.

Regarding specifically the Cambrian Explosion issue, though, where exactly had she got her

material? Of her “highly-credentialed academicians” Behe and Dembski didn’t address Cambrian data at all, leaving only Phillip Johnson to have relied on. But his coverage of the topic in *Darwin on Trial* is a model of evading relevant information, detailed in **Chapter 2** of Downard (2004), and subsequent ID reiterations (notably Meyer’s lengthier *Darwin’s Doubt*) have not improved on that.

Her allusion to the *Scientific American* article was also curious. If it was Rennie (2002b), on “15 Answers to Creationist Nonsense,” Bryson was on similar turf as *Apologetics Press* and Hartwig above, bristling at anyone with the temerity to challenge the legitimacy of ID or creationism in general. Recalling that Bryson showed indecision about the age of the Earth in *Kansas II*, something hard to imagine any non-Young Earth Creationist doing in the 21st century, one can legitimately question to what extent she was teetering on the YEC sinkhole all along, as well as reminding us of the methodological element as to whether she had ever delved into any of the technical details (such as reading criticisms of her ID academicians or consulting primary sources independently) to warrant her enthusiasm, or was simply repeating secondarily arguments she had come to accept as unassailably true and was ever so anxious to share with whoever would listen.

All this could be inferred just based on Bryson’s own interview, but curiosity prompted me in January 2014 to click the email contact on his university home page to see what William Parker had to say about the matter. Parker and his biology and chemistry colleagues “have extremely negative memories of Bryson’s time at our university.” When he first heard about Bryson’s planned seminar he “queried her about its content. She refused to answer. I asked the honors program director to give time for rebuttal or information from some of the biology faculty and he refused.” His account of the seminar and its aftermath supplied some revealing details about who attended Bryson’s lecture, with implications for its larger context:

I stood up and ad-libbed over a partially prepared statement including the fact that she had ignored requests from her professionally competent biology faculty to participate in this program and to discuss the subject matter with her. I stated that many of her points were taken out of context and that her entire talk was religion masquerading as science. She had packed the audience with high school students from a local religious school and they cheered when she asked me what she had said wrong. In her talk, she trashed the course content and textbooks of some of the on-going biology courses in her own division.

Later, the honors program allowed one of the biology faculty to cover some of the biochemical/genetic aspects of her talk, but the latter was nowhere referred to in this later talk, although she did bring a couple of creationist engineers from MSU who yelled out religious epithets after the talk.

Bryson was not fired from the university. She was asked to step down as division head. After threatening lawsuits, she was reinstated for the remainder of her contract. She stayed at the institution for another year as a regular faculty member and left after that, whether of her own accord or not I do not know. She has held temporary positions at other southern colleges since then.

Bryson’s actions were the worst cases of professional malfeasance I saw in my professional career. Not only going around the faculty who taught courses in the subject matter, but also trashing many of us in our evaluations later in the same semester; the poor example she set for students and faculty.

A similar set of issues involved another teacher who lost his job over the issue of evolution criticism and who appeared at *Kansas II* for that same reason, science teacher Roger DeHart, *Talk.Origins Archive* (2005f). He had evidently observed Irigonegaray in action with previous witnesses, so when his turn

came he promptly agreed with Sanford's ballpark geochronology numbers: 5,000 to 100,000 years: This ready admission of a YEC time frame in his thinking put into focus years of notoriety DeHart had acquired as a teacher supposedly dismissed only for trying to make available to his students non-creationist ID science evidence critical of Darwinism.

There was plenty of initial reporting on the DeHart case: regionally by Kelley (1998a-b), *Seattle Times* (1999), Goffredo (2000; 2001a-b), Frankel (2001a-b), Shapiro (2001), Downey (2002), as well as a thorough chronology of events and relevant documents assembled by local activists Ken Atkins *et al.* (2002) moved to action over what DeHart was doing in and out of the classroom. National coverage included Gibeaut (1999), Savoye (2000) and Watanabe (2001) in print; DeHart was interviewed on *CNN* (2000) and the case was covered by Abernathy & Valente (2000) and Abernathy & de Sam Lazaro (2001) for *PBS's Religion & Ethics* show. Critics of ID weighed in, of course: *American Civil Liberties Union* (1998; 2001), Matsumura (1999d). How antievolutionists reported the DeHart case will be dealt with shortly.

Piecing together what had taken place, devout Baptist DeHart had taught biology at secular and Christian schools since the 1970s, including criticism of evolution without directly mentioning God or the Bible (as though the message wouldn't be tagging along whenever a creationist argument was trotted out via only its "scientific" justification). As has usually been the case with creationist teachers, DeHart was well liked by his students and consequently fairly effective in his ancillary mission of convincing many to share his doubts about evolution—an outcome not always equally congenial for their parents, as John Gibeaut (1999) discovered in his exploration of the affair for the *American Bar Association Journal*.

In 1987 DeHart began teaching at Edison High School in Burlington, Washington and over the next decade adopted the Intelligent Design apologetic terminology, including the "were you there?" historical/empirical science methods dichotomy. Devoting a day to design issues during the two-week evolution unit, DeHart's assembled lengthy excerpts from *Of Pandas and People* for class handouts while skipping the human origins part of the assigned textbook and calling attention to what he deemed to be "errors" in its content. He later added clips from *Inherit the Wind* and quizzed his students on it afterward (a reminder of the position that film has among *Kulturkampf* antievolutionists, explored in section 1.6)—though this cinema selection may have occasionally backfired, with one student recalling it as a show that "pretty much stomps creationism," Kelley (1998b).

DeHart made a point of retrieving his handouts afterward from students, and never seemed to have retained any of the articles he employed so that higher-ups in the school administration could see them too—an odd mixture of clerical tidiness and sloppiness that suggested someone trying to avoid leaving a paper trail. But the "Inherit the Wind" quizzes ended up with the students, and in 1997 one of them happened to answer DeHart's question "Do you think both sides or views should be studied?" this way:

No, I do not. Religion is supposed to be separated from the schools. Evolution, however, should be taught because it is the "scientific" version of how we came about and has nothing to do with religion. And of course, the beginning of our existence is important. Those who want to form an educated opinion, however, should study many religions, not just the Creation story, as well as evolution. *Atkins et al. (2002)*.

To this rather poised and thoughtful answer (the student was herself religious), DeHart appended one terse comment in caps: "INTERESTING. YOUR BELIEF SOUNDS BIGGOTED." The student's father brought this little matter to the attention of the *ACLU*, after which DeHart (1997) wrote a self-serving response to the school superintendent, insisting that "I have always used the district approved curriculum and am very careful not to convey creationism as 'the correct' view. Rather I provide materials and instruction designed to raise my students' awareness of creation as something that is believed by a significant portion of the populace."

Though it would seem DeHart was more than capable of conveying a range of signals in other ways. Concerning DeHart's repeated profession of playing things "right down the middle" so that students "wouldn't know which side of the line I was on," one of DeHart's students interviewed by Gibeaut recollected a very different schoolroom ambiance:

To hear Garann R. Means tell it, someone else must have been teaching biology when she took the course seven years ago. Means, 20, now a college junior, remembers a debate over evolution DeHart orchestrated as a class exercise, but which turned out more like a segment from the *Jerry Springer Show*.

"He was making fun of me and goading the class into laughing at me," Means says. "He was like a comedian in a nightclub. It wasn't about debate. It wasn't about science. It was about proselytizing on DeHart's part." *Gibeaut (1999)*.

Notwithstanding these episodes, DeHart's special educational perspective was accommodated to a remarkable degree at Burlington-Edison. A mitigating factor was that the 1997 flap was the first public accusation against DeHart (a similar circumstance would occur in the Freshwater case discussed below), and by then DeHart had acquired legal assistance after consultation with the *Rutherford Institute*. He was genuinely popular with students (though perhaps less so for those who disagreed with his unspoken opinions) and had sizable support in a small community open to creationist arguments (as 1998 swung into 1999, one local church sponsored a Ken Ham "Back to Genesis" video series, and DeHart was among speakers at another church creationism fest). Political attitudes played a part as well, with one school board member saying they weren't about to give into the *ACLU* here, and not a few of the district school officials were averse to controversy—or even some of the facts on the ground, as the superintendent at the time of the "Inherit the Wind" incident didn't bother to read the material DeHart was using in class before deciding all was copacetic.

Though his principal was to monitor his classroom activity more closely after the *ACLU* complaint (she had not even known he was using supplemental material until the fuss ensued), so long as DeHart didn't explicitly mention "God" or "Intelligent Design" (which given his previous tactical rationalizing he could readily assent to), DeHart was given leave to use a shorter *Pandas* cribbing to discuss "irreducible complexity" in his 1999 class provided he balance that with a critical evolutionary take by Ken Miller. DeHart showed his forthright adherence to team playing and fair presentation of both sides by keeping the *Pandas* material on the table but never getting around to using the Miller response.

Through 2000 DeHart spoke on his travails and even was spotted signing autographs at Dembski's short-lived Michael Polanyi Center, spiraling ever closer to the *Discovery Institute* sun. He presented a "Science Curriculum Module for Teaching the Cambrian Explosion" at a *Discovery Institute* symposium on "Darwin, Design and Democracy: Teaching the Evidence in Science Education" held in Kansas City, Missouri (June 15, 2000) in the wake of the kerfuffle over the Kansas science standards. That nothing uncongenial to creationist sensibilities went on there was indicated by the fact that Tom Willis' *CSAMA* (2000) was happy to promote it.

By now *Icons of Evolution* was on the scene and DeHart had more secondary grist to feed into his antievolution mill, proposing to distribute copies of science articles steeped in *Icons* apologetics: Coyne (1998) and Wells (1999b) on the Peppered Moth, Wells (1999a) and Gould (2000a) concerning Haeckel's embryo illustrations, and Heeren (2000a) on new fossil fish finds. None of the non-Wells pieces on their own meant what antievolutionists wanted them to—it was only by straining them through the *Icons* sieve and ignoring all other context could they serve as ammunition (just what DeHart had been doing for years with his *Pandas* snippets), meaning it was the provenance of the ideological sieve and not the articles themselves that rendered their use problematic.

This time the Burlington district disallowed DeHart's latest supplement request and (claiming

staffing needs) reassigned him from biology to earth science for the upcoming Fall 2001 term, which DeHart would not accept and quit that summer. He quickly moved to Pilchuck High School in Marysville, Washington, but they also shied away from assigning him to biology, settling on earth science as Burlington-Edison had, where there would be less opportunity for biological origins controversies to bubble up (evidently unaware that YEC had just as many issues with geology, though in that venue criticism could not be so easily hidden behind an “Intelligent Design” veneer).

DeHart taught only the one year at Marysville, settling finally at Oaks Christian High School in California for the next decade, Les Lane (2013). When an “Icons of Evolution” video was produced, DeHart’s “censorship” plight was included, duly recommended by Chuck Colson (2002b) at *Breakpoint*, and DeHart (2004) closed the apologetic circle by compiling an *Icons of Evolution* Study Guide. His appearance at Kansas II generated another spurt of media and critical attention, Cavanaugh (2005), *American RadioWorks* (2005) and Cox (2005), where DeHart regularly repeated his dedication to presenting only scientific evidence without the teensiest of connection to the Bible or religion. Among those, only Cox called attention to DeHart’s YEC Irigonegaray’s moment on the age of the Earth.

More recently, DeHart has contributed biology course planning for the Yongsan International School of Seoul—operated by International Christian Schools to appeal to the children of foreign investors, they gained some notoriety for bending the rules on admission standards for students of some Korean administrators, Kang (2008). For the Yongsan biology course, DeHart (2012a) followed the same pattern he had at Burlington: covering the main evolutionary textbook but supplementing it with a selective range of antievolutionary material. Most were *Evolution News & News* postings (at least his parasitism was topical) and extracts from ID books and lectures, but an *ICR* piece showed up too: Kenneth Cumming (1991) on speciation issues. As at Burlington, there was no indication that DeHart included any serious criticism of antievolutionary positions, or even had investigated whether his secondary resources were accurately representing the technical literature they had cited (this was particularly so for the Cumming article).

The methodological side of the creation/evolution debate (what constitutes evidence and to what extent certain ideologies, including but hardly confined to the YEC domain, might be more than peripherally compromised when tackling evolutionary data points) did not figure in the DeHart coverage because none of the reviewers and interviewers and apologists thought to ask about it. Mainstream treatments have played into this dynamic insofar as they aimed at “evenhanded” coverage where the opposing camps’ positions were quoted but not investigated. Methodology naturally slipped even farther into the shadows wherever media coverage was sufficiently uncritical of Intelligent Design’s pretensions to scientific credibility that it could be coopted in the design community without qualms, as Watanabe (2001) was in the *Los Angeles Times*, scooped up by the *Discovery Institute* along with others on the daisy chain, from *adventistradio.com* to the *Apologetics Index* (operating then at the old *gospel.com* website).

The presence of a religious perspective contributed to this “view from afar” approach in proportion to the desire to avoid conflict. *PBS’s Religion & Ethics* has consistently supported the validity of evolutionary science as they have navigated through the debates over the years, trying to calm the waters during the Darwin Bicentennial with Abernathy & de Sam Lazaro (2009) and providing background guides to their archived coverage of ID and the DeHart case, *Religion & Ethics* (2007a-e). But their three “Student Organizer” questionnaires addressed only sociopolitical aspects, not methodological metrics. So respondents were asked whether they thought ID should be included with evolution instruction or if it would be divisive if it were—not things like whether it would be appropriate for a “Teaching All the Controversy” science unit to actively engage the evidence being proffered for ID (or the unmentioned YEC option) with the possibility of finding it unsatisfactory to begin with, or whether doing that would be desirable even at the risk of offending the religious concerns of some parents or students who believed otherwise.

This is no hypothetical concern, but a real and extensive minefield offering a host of opportunities for teachers to misstep. For example, Eugenie Scott (2010c, 243-244) recalled “the teacher who asked a student to provide a reference for his claim that Darwin recanted evolution on his deathbed and was threatened with a lawsuit by the student’s father.” The Darwin recantation was a myth, meaning a proper citation for it would have been impossible. So what is a teacher to do? Pander to the student’s false belief by letting it slide, or risk trouble by prodding the student to document it?

The methodological concerns of how evidence is assembled and assessed is ever-present in the antievolution controversy, that propensity for secondary redaction and quote mining. Arguably it was the most powerful factor framing apologetic discussion of the DeHart case. What participants actually did took a back seat to what they may have said about what they did, and that in turn was nestled in a still larger structure: what the apologist wanted to have been said or done. Having laid out the “who did what and when” chronology for DeHart, how did antievolutionists parse things?

Julie Foster (2000a) at *WorldNetDaily*, Mark Hartwig (2000b) for *Focus on the Family* (where he served as “religion and society analyst”), Nancy Pearcey (2000d) at *World Magazine*, *Answers in Genesis* (2000a,f), *WorldNetDaily* (2001) again, Catherina Hurlburt (2001) at *Concerned Women for America*, and the creationist Encyclopedia of Biblical Knowledge’s *A Storehouse of Knowledge* (2014) all objected to the 1997 *ACLU* complaint without mentioning anything about the “Inherit the Wind” quiz that had sparked it, allowing DeHart to be perceived as the victim of some baseless vendetta (“DeHart is being hounded by the American Civil Liberties Union” according to *AiG*) orchestrated by those opposed to America’s children learning about the flaws in evolutionary theory—the “Darwinian thought police” as John West (2002d) put it. Honors for evasion here may be split among *CreationWiki* (2010l)—who had to have stepped right over the facts in their summary because they cited Atkins *et al.* (2002) at this point—with Christopher Johnson (2011a) and Casey Luskin (2014o) sprinting past the lot of them by not even acknowledging that there had been a parental complaint.

Pearcey and *Answers in Genesis* struck a sympathetic chord for their faithful readers by stressing how DeHart hadn’t mentioned God or religion in class—a point Watanabe (2001) had made too, but which represented a bit of misdirection since that wasn’t DeHart’s salient problem. California creationist Ron Graff (then pastor at the Solid Ground Church in Alta Loma) would be one of those seeing things in the same way in the “Creation and The Genesis Flood” summary of the case at his *Prophecy Central* website, Graff (2002), indiscriminately drawing on ID and YEC resources along with End Times prophecy fulfillment and the discovery of Noah’s Ark. Since 2011 Graff has focused on *Prophecy Central* (those End Times keep on coming) while the Solid Ground Church continues to run the *Alta Loma Christian School* (2011) with a preschool through 8th grade curriculum using creationist *A Beka*, *ASCI* and *Bob Jones University* material for their science courses (more on those later).

Pearcey’s *World* turn on DeHart’s martyrdom percolated through the *Kulturkampf* network. Rev. Gise VanBaren (2000) copied Pearcey’s version *en bloc* for *The Standard Bearer* religious magazine, while Gary Hardaway (2001) representing the local “Concerned Christian Citizens” (an organization no longer active as of January 2014) did at least interview DeHart but still ended up extensively repeating Pearcey’s gloss.

More secondarily, Ann Coulter (2006, 224) painted the DeHart case as purely one of the teacher being prohibited from bringing up Cambrian Explosion fossils, citing only Watanabe (2001). Thus Coulter may have been too far from the details to be aware of the dicier aspects of DeHart’s abusive treatment of students.

Much was made of the science articles DeHart wanted to use during the 2000 term, though often only vaguely. Christopher Johnson (2011) said only that DeHart was prohibited from “passing out up-to-date science journals to correct bad information.” In “The Student Wedge Update” at the *Intelligent Design Undergraduate Research Center*, J. Alder (2001b) complained how the school board “censored” DeHart’s supplemental material drawn from “scientific journals” (no mention of his *Of Pandas and*

People use). The *IDURC* (a spin off from the *Access Research Network*) had run out of researching steam by 2014, giving a piquant irony to the optimistic expectation of Alder (2001a) that Intelligent Design was “on the forefront” of a movement promising “the overdue revolution in scientific thought.”

Luskin (2014o) included DeHart on the same listing as Bryson above, trimming the issues down to one of having been “denied the right to have his students read articles from mainstream science publications that made scientific criticisms of certain pieces of evidence typically offered to support Darwinian theory. One of the forbidden articles was written by noted evolutionist Stephen Jay Gould. Although DeHart complied with this ban, he was later removed from teaching biology.” Hartwig (2000b) was more specific when he played namedropper: “The district even rejected his request to distribute articles from such mainstream journals as *Nature*, *Natural History* and *The American Biology Teacher*.” *A Storehouse of Knowledge* (2014) likewise included *Nature* among DeHart’s “articles from prestigious secular scientific journals which showed the textbooks to be wrong in places.”

Double standard alarm: it was a gutsy maneuver for Luskin, Hartwig and the *Encyclopedia of Biblical Knowledge* to bring Gould or those journals up by name in the first place, given how little credence antievolutionists (ID or YEC) have ever given to Gould’s extensive evolutionary judgments (including *The Structure of Evolutionary Theory* that alone runs several thousand pages) or the stacks of technical papers emanating from *Nature* over many decades. One should further note that Gould’s article appeared in *Natural History*, a fine magazine but one aimed for a general readership, and *The American Biology Teacher* addresses educational practices, not technical disputes—and on occasion issues of controversy, which is how Duane Gish (1973) and Jonathan Wells (1999a) turned up in *The American Biology Teacher* too. But *this time* we are to accept just those few select examples that crossed the secondary path of our intrepid biology teacher (and all, it would seem, without much in the way of “critical analysis”).

Pearcey (2000d) meanwhile cast her grappling hook even higher:

the administration imposed even more draconian restrictions. Mr. DeHart wanted to alert students to recent reversals in key evidence for Neo-Darwinism, and sought approval to distribute articles from mainstream scientific journals to correct old, outdated information in the textbooks. Astonishingly, the principle said no. In short, the ACLU’s intimidation tactics have been so successful that Mr. DeHart is being compelled to teach a caricature of the scientific method.

Unfortunately, none of the articles DeHart wanted to use could be regarded as dislodging “key evidence for Neo-Darwinism” (which involved a far broader set of interlocking genetic and biological foundations than seen in the truncated ID account). But then Johnson, Alder, Hartwig, the *Encyclopedia of Biblical Knowledge* and Pearcey all spared their readers the trouble that might have ensued should any try checking on their content or relevance: none offered actual citations, let alone critical context for them. The *Icons* claims about moths and embryos and such were simply repeated as though established truth, with Hardaway pumping this into DeHart having “actually been commanded to suppress data and teach falsehoods.” That “critical analysis” the design camp was constantly advising educators to use clearly not on display here.

Even more revealing of the underlying methodology of ID apologetics (and perhaps the curious *tortucan* capacity to trip up on historical sequencing) was the fact that neither Johnson nor Alder nor Luskin nor Hartwig nor Pearcey (or Pearcey’s secondary appendages VanBaren and Hardaway) noted how the district’s decision on DeHart’s plan had only come *after* the teacher’s bad faith failure to balance his “irreducible complexity” discussions—no spur of the moment act of suppression, but a reluctant necessity taken by a board initially sympathetic to him after years of cutting him slack. Though given the secondary character of so much antievolutionary writing, none of DeHart’s many defenders

would have committed any technical sins of omission here to the extent that they were unacquainted with what had actually gone on in Burlington.

Several years of controversial water had spilled over the DeHart dam by the time Phillip Johnson called attention to him, which he did in 2001 in the second Joe Baker *Weekly Wedge Update* piece:

The prime event of the past week was the “Banned in Burlington” teach-in at the Seattle area high school where science teacher Roger DeHart has come under attack for “teaching the controversy” rather than sticking to the official story about evolution in the textbooks. A mostly supportive crowd cheered DeHart along with Discovery Institute President Bruce Chapman, Gonzaga University law professor David DeWolf, and Jonathan Wells. DeWolf made the point that even a law review article taking the Darwinist line agreed that DeHart’s teaching was within all legal boundaries. The opposition was represented by some faculty from Western Washington University, who were driven to the fall-back position that learning about the textbook errors is “too sophisticated” a subject for high school students. Of course the errors aren’t corrected at the graduate school level either, and most evolutionary biology professors still seem to think that the non-existent early embryonic similarities are “just what our theory predicts.” *Phillip Johnson (2001c)*.

Here was the enabling culture of the evolved Intelligent Design activism at full throttle. The factual details were lost in the trumpet blowing (such as those “non-existent” embryonic similarities that have been known to science since the 1830s, as we’ll see in later chapters). As with Joe Baker, no attention was paid to what DeHart actually believed or had done in class, or who occupied the subculture defending him beyond the confines of the *Discovery Institute* glee club.

1.7 Section 16: The ACLJ as Perry Mason (Not)—Rod LeVake and “The Case of the Bedeviled Creationist”

The same issues of antievolutionary persecution appeared with Rodney LeVake, a biology teacher at Faribault High School in Minnesota who sued school officials for violating his religious and academic freedom after he was reassigned from biology to freshman science for refusing to stop offering creationist criticisms of evolution in class. John Calvert brought him up during Kansas II, saying he’d been reassigned “because all he wanted to do was teach evolution honestly,” *Talk.Origins Archive* (2005j).

There was the expected media coverage, of course, such as Lieblich (1999), *Channel 4000* (1999) and Tyrangiel (2000), along with plenty of critical reactions: Matsumura (1999d), Scott (1999c; 2000b,d; 2010c, 243), *Ecological Society of America* (2000), Robert Carroll (2001), Applegate *et al.* (2002; 2003), Randy Moore (2004; 2013e), Than (2005) and Maloy (2012b). The creationist and ID coverage will be examined shortly.

The LeVake case was unusual in that it ended up in court (Freshwater would also), and for a change it wasn’t the *Rutherford Institute* but Jay Sekulow’s *American Center for Law and Justice* that defended the teacher. Founded in 1990 by Pat Robertson (described by their website as “a Yale law school graduate, religious leader, entrepreneur, and concerned citizen”), the *ACLJ* embodies the conservative religious ideology of its parentage. Although the organization regularly fulminates on abortion, homosexuality and anything to do with liberal political policies and file legal briefs on issues of concern to them, the LeVake case was the only time the *ACLJ* stepped into the evolution debate, and the results may give a clue why.

LeVake was a middle school general science teacher with a masters degree in biology who hoped to apply that background by switching to the biology section. A likable fellow who did not hide his

fundamentalist Christianity but didn't provoke heated arguments over it, he belonged to a church denomination that explicitly rejected evolution, and those beliefs raised a problem for his desired career move because he could not honestly teach the chapters on evolution. Fortunately, LeVake said his retiring predecessor told him he hadn't taught evolution either and that LeVake wouldn't have to if he didn't want to, Lieblich (1999). Only the teacher in question recollected things differently: not spending a lot of time on it but still covering the chapters in class.

This often striking mismatch between LeVake's dissembling mindscape and his overt actions continued from the moment he took up his new teaching post, as press accounts and subsequent court depositions showed. The amiable and popular LeVake held true to his convictions and skipped the evolution unit (omitting mention of evolution in tests) and explained this afterward as due to time having run out in a shortened term. But class hours had been lengthened to compensate for the short term (during which the other science teachers had managed to include some of the evolution unit), and one of LeVake's own students (a sympathetic one at that, who enjoyed the class overall) reported that LeVake had announced on the *very first day* that he wasn't going to be teaching evolution. In their court submission *American Center for Law and Justice* (1999a) ran that information under the bus when they attested that LeVake "anticipated teaching a unit on evolution during the academic year" but "never reached that section of the book" only on account of the truncated school year.

LeVake did find class time to discuss creationist works, though, and a student who reported on an article in *Answers in Genesis' Creation* magazine earned extra credit points. LeVake also happened to belong to the *Institute for Creation Research*, putting his activities in touch with the output of both major players on the Young Earth creationist scene in the late 1990s.

Leaving out chunks of the assigned curriculum is not a way to endear you to the school administration even without the creationist trimmings, and the science chair at Faribault, Ken Hubert, arranged for LeVake to work through his issues with the principal and district science coordinator. LeVake said he could teach the evolution unit after all, provided he was allowed to present the "evidence against evolution," and LeVake was asked to prepare a paper describing what revisions he had in mind for this customized curriculum change.

The resulting six page "position paper on the teaching of evolution" made many things abundantly clear. Following the "no one was there" tack of modern antievolutionism, LeVake (1998) started off by claiming both evolution and creation were *untestable* and hence technically not "considered a science (Biology)." A second methodological shoe dropped when he insisted that "The process of evolution itself is not only impossible from a biochemical, anatomical, and physiological standpoint, but the theory of evolution has no evidence to show that it actually occurred," and listed several dozen supposed biological problems for evolution (including such minutia as "the woodpecker's tongue and shock absorber") that have circulated in creationist literature, along with newer terminology (like Behe's "irreducible complexity") cribbed from the developing ID camp.

The unspoken logic chain here was consistent with creationist thinking, and it carried a concealed apologetic bomb. The "either creation or evolution" dichotomy seen at *Edwards v. Aguillard* meant that if you established evolution as "impossible" then Creation (the YEC model that was the sole allowed alternative) must be true by default, whether or not LeVake bothered to mention God or religion in class. That meant every time LeVake brought up some "evidence against evolution" it was playing into a presupposed sectarian dogmatic context.

Left on the consistency floor was the absurdity of claiming evolution was "untestable" while insisting it was "impossible" based on physical evidence. Isn't that the very essence of testing a scientific hypothesis? But if that were conceded, how then could the untestability of Creation be maintained as well? The creationist apologetic game of Hide the Ball whereby all argument was about evolution and not its proposed alternative fit well with the necessity since *Edwards v. Aguillard* of keeping God and extrovert religious defenses out of the picture, but forced activists like LeVake to wing it from an

increasingly eroding promontory composed of secondarily scavenged talking points that would still have to stand or fall on their merits just like any other factual claim. Testability was never going to be a one way street devoid of contentious cross traffic.

While LeVake (1998) declined to “spend time on what I see as supporting evidence for a creationist point of view” that resolve didn’t last long: on the following pages he threw in “polystrata” (*sic*: **polystrate**) fossils, problems with radiometric dating, and the notion that the Second Law of Thermodynamics precluded evolution—all of which (apart from a more recent idiosyncratic defense of entropy arguments by Granville Sewell) being diagnostically distinctive turf for the Henry Morris brand of Young Earth Creationism.

Knowing these elements of LeVake’s thinking and what creationists have been contending for years, there was nothing unexpected when LeVake (1998) repeated the ubiquitous antievolutionist conviction that “There has never been a creature discovered that could be considered a logical intermediate of any two major classes of animals or plants.” He mentioned only *Archaeopteryx* as an example, summarily flicking it aside with: “considered by many to be a link between reptile and bird, but has recently been questioned.” By whom he neglected to say. In fact, it was a free for all to imagine from his Position Paper how he might have assembled his understanding of anything, as the only time he identified specific sources was to elbow the fine art of creationist redaction off a scholarly cliff:

Thousands of scientists with advanced credentials have begun to take a second look at what we all were taught in school as “fact.” I encourage you to read Michael Denton’s book [Evolution: A Theory in Crisis](#), (1985, Adler & Adler), Phillip E. Johnson’s book [Darwin on Trial](#) (1991) and Michael Behe’s book [Darwin’s Black Box](#) (1996, Touchstone). Although I have not personally read the last two books listed as of yet, they are nationally acclaimed as critical reviewers of the theory of evolution and are on my list of books to read. *LeVake (1998)*.

Besides the chutzpa of carving “thousands of scientists” down to just three problematic examples (or two, if you remember Johnson was a lawyer), for someone who hadn’t even read Behe’s book, LeVake appeared remarkably eager to repeat his conclusions as established, giving a good measure of how LeVake may have been operating elsewhere in his “honest look at the difficulties and inconsistencies” of evolution (as well as the common readiness of YEC apologists to expediently reload with refreshed ID ammunition).

Although Lieblch (1999) reported LeVake saying he “relies heavily” on *Evolution: A Theory in Crisis*, there’s reason to suspect more cognitive disconnect here as very little of his position statement assertions could have been mined from Denton’s book. But if taken at face value, LeVake’s debt to Denton would only saddle him with an even narrower credulity and rank hypocrisy to the extent that he failed to apply the “critical thinking skills” he wanted so to instill in his students to the only source he intimated he had actually read.

If LeVake thought to give Denton more credit here than he deserved, it may have been because he didn’t want to identify some of the sources he *was* paying attention to. Ironically, the court depositions occasioned by his lawsuit pried several from under cover, Koch & Bjorklund (2000). Ken Hubert spotted the Jehovah’s Witness antievolution book *Life—How did it get here?* open on LeVake’s desk. Though LeVake stipulated he had not used that work directly in class, I encountered many of his specific position statement examples in *Watchtower* (1985, 46, 74, 79, 105-107, 161, 166, 171). LeVake could have got his *Archaeopteryx* and flagellum examples from Denton (1985), but even those points were in *Life—How did it get here?* too.

As for its scientific utility, the review by Levin (1992) noted *Life—How did it get here?* trod the same path as Henry Morris’ *Scientific Creationism* with a rampant reliance on quoting dated sources out of

context, especially regarding fossil evidence. Where it differed most from Morris was in not regarding creation and evolution as equally untestable (whereas LeVake tracked the *ICR* approach in his Position Paper) and failing to compartmentalize the religious element as *Scientific Creationism* had (which came in two versions, a public school edition bereft of scripture, and another aimed for religious schools where supplementary Bible readings wouldn't pose a constitutional or apologetic problem). Since *Watchtower* (1985) constantly referenced the Bible, it would have been Hell Fire hot for public school use in principle.

And yet LeVake did admit to using Jobe Martin's *The Evolution of a Creationist* in class, the work that had so impressed Joe Baker but likewise shouldn't have passed muster (overtly religious and factually wrong besides). LeVake also drew upon *Bone of Contention: Is Evolution True?*—a booklet by British creationist Sylvia Baker (1976) that has gone through several editions since but was just another recap of standard YEC doctrine. Apart from reading *Life—How did it get here?* as a potential well of misinformation, LeVake may have avoided using it in class for reasons other than technical content: because its specific Jehovah's Witness sectarian provenance differed too much from his own.

You can keep Rod LeVake in mind in the chapters to come as those volumes come under critical scrutiny (particularly *Evolution: A Theory in Crisis*) and think back to the idea that LeVake would have considered any of it suitable for inclusion in a public school biology course. Viewed methodologically, LeVake's position statement was a tangle of creationist factoids and deck-stacking assumptions. The result was something Eugenie Scott (2000b, 815) described in *Science* as "an evidence-against-evolution curriculum indistinguishable from Creation science. Only the terminology has been changed in order to circumvent the First Amendment's prohibition against establishment of religion."

How many students could have seen the scientific terrain through LeVake's creationist camouflage was debatable, and the school district decided to relocate him to earth science for the 1998-1999 year—though (as with the DeHart case) it might be wondered how long it would have taken before LeVake felt the urge to challenge geological dating with his "polystrata" fossils. Things came to a head before that temptation could occur as LeVake launched his lawsuit in May 1999, with the *ACLJ* asking for \$50,000 in "compensatory damages" in a legal defense building on the belief circulating after *Edwards v. Aguillard* that individual teachers should be allowed to present their antievolutionary arguments so long as it was on their own initiative, and that a school would be violating the teacher's academic and *religious* freedom if they objected.

Given the background of LeVake's views, it is noteworthy that *at no time* in any of its public press announcements about the case or in the legal submissions to the court did the *ACLJ* ever discuss LeVake's creationist associations or the resources he drew on, Manion (1998) and *American Center for Law and Justice* (1999a-b; 2000). At all times LeVake was painted generically as a dedicated teacher "barred from teaching biology because of his religious beliefs," an object of "educational McCarthyism" over his "extremely limited and reasonable request" to present relevant and truthful information. *American Center for Law and Justice* (2000) even climbed onto a populist stump to suggest "that LeVake, like all teachers, has a right to present facts to his students even if those facts are disturbing to those in power."

The *ACLJ* tiptoed very close to the concealed backstory at times, as when their lead lawyer, Francis Manion (1998) insisted to the court that LeVake:

has no intention of teaching "creation science" or imparting his or anyone else's religious views to his students. All he wants to do is to present the theory of evolution as just that—a theory subscribed to by the majority of scientists today but not without some reputable, non-religious dissenters. Only a school district interested in imposing a "pall of orthodoxy" on its classroom could object to such an approach.

This was a disingenuous assertion of biblical proportions given that LeVake had been conveying the exclusive *claims* of Creation Science extracted from identified Creation Science sources (unless Manion wanted to trot out some reliable non-YEC secular spokesman who has ever considered “polystrata” fossils pertinent to descent with modification). That LeVake (1998) sought to wriggle the provenance of his arguments under the cloak of Denton and Intelligent Design only underscored the irony of a “situational ethics” regarding that commandment on bearing false witness, abetted by the *ACLJ* to the extent that they reprised his assertions in defiance of the evidence—LeVake (1998) was attached to the *ACLJ*’s submitted court complaint as their own *Exhibit A*.

American Center for Law and Justice (1999b) quoted Manion: “School officials may not pry into an employee’s religious beliefs and then discriminate against him because of what officials think about those beliefs. That kind of action is unconstitutional and we intend to prove it in court.” Only they failed (miserably) to prove that in court, and that was because at no time were LeVake’s *religious views* under scrutiny in the way the *ACLJ* implied (no one suggested LeVake had to forsake a belief in God in order to teach evolution, and none of the many treatments even alluded to what church he belonged to apart from its creationist beliefs). What was in dispute was LeVake’s injection of books and articles of dubious scientific merit while showing a complete unwillingness to teach the assigned evolution section (again in contradiction to the spin the *ACLJ* put on it in court and in their press releases) *unless* he could do it his way and his way alone.

Manion (1998) offered a specious analogy in the *ACLJ*’s demand letter when asking if a teacher should be “disqualified from teaching the subject of biology” solely on account of their religious belief:

May a teacher who, personally, finds socialism to be a superior economic philosophy teach a high school class on economics where the textbook is written from a pro-capitalist perspective? Does a teacher who privately prefers the parliamentary system of government automatically forfeit her right to teach a high school U.S. Government class?

If they were editing out part of the course they didn’t like and insisting on interpolating their own ideological works in the way LeVake did on evolution, not only would they be unjustified in doing so, but in the case of the socialist, odds are the *ACLJ* could be prodded into complaining about such class indoctrination in their incessant email alerts.

LeVake departed from his private conviction the moment he started using a book with the provocative title *The Evolution of a Creationist* in class. Manion did not venture how any administrator could have avoided asking how much of LeVake’s use of books like Martin’s stemmed from merely disinterested pedagogy and how much because he “professes Christianity of a certain type” (as Manion euphemistically put it in his demand letter) shared uniquely with their authors and so accorded them unwarranted credibility on those grounds. Had LeVake skipped a section on Mesoamerican accomplishments in a history class while replacing it with extracts of *Chariots of the Gods*? any investigation could be considered derelict to the extent it failed to “pry” by asking if the teacher believed in ancient astronauts.

Although making so much of the religious liberty issue was a tacit admission that what LeVake was doing in class was intrinsically religious, the court did not need to address that side of things in part because LeVake had been too good at keeping his creationist beliefs under wraps around his colleagues and students, nor could he claim that his personal religious practices had been in any way curtailed by what he wasn’t allowed to say when wearing his teacher’s hat. He hadn’t been fired nor even reprimanded for his beliefs, only reassigned and enjoined to stick to the curriculum he had been hired to teach. That left the remaining element of *ACLJ*’s plaintiff argument, that a teacher could rewrite mandated curricula at will (independently from what motivations underlay that desire or whether the

information the teacher wanted to inject was sound or folly). It was difficult to imagine any court buying into that *carte blanche* either, and the district court dismissed LeVake's case on all counts. LeVake lost on appeal, Foley (2001), and the Supreme Court declined to hear the case.

Rev. Tom Pedigo (2002) of the *National Alliance Against Christian Discrimination* in Colorado reflected the conservative Christian reaction to the LeVake decision when he summed it up as "Monkeys 1; Christians 0." Plenty of spleen was also vented at Ken Hubert: "Letters claimed that Hubert was a Nazi, that the Bible records all of the basic laws of science, that evolution is a lie, that teachers who teach evolution should be fired, and that the teaching of evolution is responsible for premarital sex, abortion, homosexuality, drugs, gangs, Satanism, and suicides," Randy Moore (2013e).

Tales of LeVake's martyrdom circulated among *Kulturkampf* Christian apologetic groups. Some were minor ones, like *Resurrection Power* (2000), an apologetic website that was still active in 2014 but hadn't added anything new since 2001, or *Maranatha Christian Journal* (1999). A familiar set of characters weighed in: Frank York (2000) for *Focus on the Family*, Julie Foster (2000c) at *WorldNetDaily*; *American Family Association* posting Buehrer (2001) from "Gateways to Better Education" and *WorldNetDaily* (2001) weighing in again. The narrowest circle of incestuous argument followed Candi Cushman (2001) at *World Magazine*, recommended by their partners at the *Christian Broadcast Network* and by Catherina Hurlburt (2001) at *Concerned Women for America*. Cushman reflected the *ACLJ* account without reservation—and the *ACLJ* returned the favor by heartily recommended her treatment. Secondary sprinters with more stamina could get their Cushman via Christopher Johnson (2011a) recommending the *Twin Cities Creation Science Association* (2001) that had cribbed the *World Magazine* article.

All ended up sounding a lot like the skit on *Conan* where an avalanche of clips from local news reporters catch them reading the same canned message. LeVake's defenders chorused how he had not taught "creationism" or pressed his religious views, often interlaced with corroborating quotations mined from Manion and the *ACLJ*. What none of them did was examine any of the explicitly creationist examples in LeVake's own Position Paper (even the ones who mentioned LeVake's preparing it) or the court deposition information that belied his claims. The concealment of LeVake's creationist beliefs extended even to *Answers in Genesis* (2000d; 2002a) and Brian Thomas (2008g) at the *Institute for Creation Research*—the very groups you'd think would be most disposed to embrace him as one of their own.

Possibly because their legal case belly flopped in court, the LeVake affair has been conspicuously absent from their evolving position statements on teaching creationism: *American Center for Law and Justice* (2001; 2003; 2013d) have ramped down allusions to creationism in favor of the increasingly prominent Intelligent Design rhetoric, as has their spinoff organization, *European Center for Law and Justice* (2007). While Jay Sekulow (2003b) held "creationism does deserve to be taught along with evolution" provided "it does not promote a religious purpose," he declined to specify by illustrative example how anyone could do that (evidentially or legally), and replied to reader questions on evolution, creationism, and ID in schools with little beyond an encouraging thumbs up that evolution was getting criticized, Jay Sekulow (2002a-b; 2004).

Perhaps not coincidentally, over this period Pat Robertson came out of the geochronology closet and decided humans really did live after dinosaurs, a slice of antievolutionary theater that brought howls from *Pandas Thumb* and growls from *Answers in Genesis*, with Ken Ham eventually deciding Robertson was "misinformed and deceived," David E. Thomas (2012b), Tommy Mitchell (2012c) and Zaimov (2014b).

Viewed with the perspective of time, Moore & Cotner (2013) noted that the LeVake case was atypical in that most creationist teachers "are tolerated—and sometimes even encouraged." Which can be compared to Jerry Bergman (2012a) demonstrating once again his manipulative use of source material when he cited the LeVake court case and Randy Moore (2004) of all people to justify this claim:

“Another problem is that many teachers who teach Darwinism objectively are accused of not teaching it at all when, in fact, they cover it in much more depth than most teachers.” False on all counts. LeVake was the only subject of Moore’s interview, and Moore made no such claim for LeVake (recounting at length his failure to cover the assigned material compared to his colleagues) or *any* “teachers who teach Darwinism objectively” (by which Bergman meant creationists like himself) let alone that “many” had done so.

Meanwhile, LeVake had shown no apparent inclination to hone his own “critical thinking skills” regarding evolutionary matters, as paleontologist (and a Christian himself, albeit a fairly doctrinally liberal one) Robert Asher (2012b) spotted regarding his own specialty of the fossil record:

Teachers do not have the "academic freedom" to distort this evidence, for example by stating that animals since the Cambrian show "very little change throughout the rock layers," as Mr. LeVake did in a 2008 interview with the Discovery Institute. A civil society cannot force him to reject belief in static species, custom-designed by a human-like god who circumvents natural processes. However, because his job required knowledge of history and science, his beliefs on those topics should not be insulated from scrutiny by his employer.

Which brings us to the person doing the *Discovery Institute* interviewing: Casey Luskin (2008x-y). Like the *Kulturkampf* warriors noted above, Luskin (2009am, 21-24; 2010h; 2014o) has repeatedly called attention to LeVake as an aggrieved martyr to academic freedom. The 2009 *Hamline University Law Review* article (and its online reprise in 2010 for *Evolution News & Views*) ought to have been the most thorough, but it was simply a repetition of the contentions of LeVake and the *ACLU* legal briefs. As to LeVake’s having “allegedly failed to adequately cover the curriculum requirements for evolution” Luskin (2009an, 21-22) supplied a documentary footnote that consisted only of a transcript excerpt of his 2008 podcast interview:

Casey Luskin: “There have been people including both the court and some Darwinists involved with this situation who claimed that you refused to teach evolution. Is that true?”

Rodney LeVake: “No, that was actually not the case at all. It wasn’t that I was refusing to teach evolution. They wanted to know my views about what I thought about evolution. And I told them that I had some concerns about it from a scientific standpoint. I thought that would be a good quality to have and help my biology students to think critically about this. After all, that’s what science is all about, trying to help students to think critically about topics, and evolution would be one of them. And so I didn’t think it as a defiant proclamation on my part. I was just simply mentioning that I thought that Darwinian evolution had some flaws that would be worthwhile taking a look at.

Casey Luskin: “They’ve also said Mr. LeVake that you refused to teach basically the full curriculum regarding evolution and what you were supposed to teach. Was that a true charge against you?”

Rodney LeVake: “No. As I had mentioned, on the side as I was talking earlier, I was teaching the very same thing as my mentor teacher was right next door. Every single day I taught the very same thing that he taught.”

Well, if that’s what LeVake *said* happened in response to your softball questions, why gosh, it must be true, mustn’t it?

In one sense Luskin's account was of a piece with the other LeVake defenders: no exploration of what LeVake specifically taught or the sources he relied on or even what the teacher had written in his own 1998 Position Paper (which Luskin did not mention). But this was no squib for *WorldNetDaily* or *Focus on the Family*, but a law review article where standards ought to have been a bit higher. Yet Luskin failed to put any non-LeVake testimony in the dock or acknowledge the *Kulturkampf* component of the affair reflected in the *ACLJ's* botched involvement in the litigation (whose details contradicted LeVake's version and which Luskin also did not discuss).

Luskin topped off his closed circuit gloss in the *Hamline University Law Review* with exactly one (very non-disinterested) opinion on LeVake's legal import, cited presumably because it happened to concur with his own: Christian philosopher Francis Beckwith (2002), occasional fellow of the *Discovery Institute* and advisor to the *Intelligent Design and Evolution Awareness Center* where arguments from Luskin and others found ready venue. Interestingly, Robert Vischer (2006, 85) cited Beckwith (2002) along with DeWolf et al. (2000), but not regarding the LeVake case but only generally apropos the need "to give teachers academic freedom to ensure that students can 'explore and develop new ideas,' and to provide a bulwark against education becoming 'indoctrination'." Vischer's paper will pop up again in an equally ambivalent role concerning the *Dover Kitzmiller* case.

However personable and charming Luskin can be on a personal level, just as Phillip Johnson had with Roger DeHart and Joe Baker before him, the moment he put on his apologetic hat, Casey jumped onto what had become a singularly narrow one rail line at the *Discovery Institute* that operated now at all levels and in all venues: only Intelligent Design exists as an antievolutionary position to be recognized. If there happen to be "creationists" somewhere (who might believe some manner of things totally outside the strictly scientific purview of ID), they are not whoever it is we are interviewing or writing about, and in any case could not be doing anything of concern provided we don't look at them. All information presented by these "Intelligent Design" advocates must be valid and worthy of the most honored deference, though none of what they may have said or written will be discussed unless it coincides with the items covered by *Icons of Evolution* or the latest *Discovery Institute* videos.

There were other creationist teachers who bumped into the boundaries of acceptable science education during this period, though none got the prominence of DeHart or LeVake. Jefferson High School (Lafayette, Indiana) chemistry teacher Daniel Clark was reprimanded for inviting Geoff Stevens of *Answers in Genesis* to speak to his class on "The Nature of Science Regarding Origins." When the school declined to rescind the wrist slap, Clark quit over this "persecution" and moved to Frontier School Corporation (Indiana's term for school districts). Stacia Byers (2001) at *AiG* wished "Dan the best as he teaches his new students the nature of true science." As no subsequent incidents have cropped up regarding Clark, it is unclear whether this means he has revised his conception of "true science" or kept any *AiG* addenda more to himself (or simply found a school environment less prone to reprimanding). Stevens continues to lecture for *AiG*, but lacks any discernable written *oeuvres* to calibrate his reliability.

Across the continent, biology teacher Kevin Haley did not get his contract renewed at Central Oregon Community College in 2000 following student and faculty concerns over how his religious disapproval of evolution and attitudes about women manifested in class (though he had taught at a Catholic girl's school without apparent incident), Leatherman (2000) for *Chronicle of Higher Education* and Koe (2000) at *Christian News Northwest* regionally. In a familiar template, Haley was well-liked and had not explicitly advocated creationism in class, but an evangelical undercurrent to his thinking may have been the tipping point as far as the school was concerned:

"Students who doubt evolution are more likely to find God," he noted. One student who filed a complaint against Haley said the instructor seemed not to understand how thoroughly his faith influenced his teachings and saw no reason to change. Koe (2000).

Answers in Genesis (2000a-b) was particularly peeved over the college's disinclination to discuss the details of the case, but as Haley didn't take any legal action over the contract cancellation (where depositions might have revealed much about what manner of resources Haley may have drawn on to arrive at his opinion on evolution), his case has had less traction in the *Kulturkampf* media: Foster (2000a-b) and *WorldNetDaily* (2001), Nancy Pearcey (2000d) at *World Magazine*, and *Focus on the Family's* "Family News in Focus" show, noted by *People for the American Way* (2000b) in their monitoring of Right Wing media. Haley has stayed below the Internet search radar in the years since, such that Christopher Johnson (2011a) didn't even have a picture of Haley to post when he channeled the decade-old coverage of Foster and Pearcey.

Another blip on the creationist science teacher scope passed by during this period, as Roanoke, Virginia biology teacher Larry Booher was told to stop his practice of passing out YEC material, which he had been doing for *fifteen years* apparently without anyone in the school system (supervisors or parents) noticing or complaining until a whistle blower called attention to it, *Fox News* (2005a). After Mehta (2014a) made the Booher (2005) supplement available it was possible to examine exactly what the now-retired Booher thought constituted valid evidence in favor of YEC, which turned out to be a repetitive 500-page collection of claims cribbed secondarily from a small well of dated creationist works (including the Lunar Dust Myth) covered variously in the Downard (2004) chapters.

Meanwhile, Phillip Johnson joined creationist Andrew Snelling for a joint lecture gig among the heathens of England, *ICR* (2005) reporting this congenial intersection of ID & YEC apologetics with blithe understatement:

Although approaching their subjects from somewhat different perspectives, Dr. Snelling and Professor Johnson found that they could minister well together. Professor Johnson emphasized that evolutionists do not have any mechanism which explains how macroevolution would have happened, and that all their anger expressed over creationism is a smokescreen to hide this lack of evidence, which suggests that they are really defending a religion, not science. Dr. Snelling presented evidence for a young earth from the RATE project, for the Flood from geological evidence, and then finished with the relevance of these issues to the Gospel.

And thus did Phillip Johnson hobnob with someone espousing stock creationist claims on radioactive dating and the Biblical Flood, without apparently having his methods umbrage meter quiver off flat line, unlike his hair-trigger skepticism regarding a range of macroevolutionary science data Johnson had shown not the slightest curiosity to explore at depth, as covered previously in Downard (2003; 2004) and in due course in this present **TIP** project. What indeed was left then of the illusion that there was some fundamental distinction between ID & YEC methodology?

1.7 Section 17: Intelligent Design Goes to Court—*Kitzmiller v. Dover* and reading between the lines

Just as the Kansas II locomotive was leaving the station *en route* to its derailment, over in Pennsylvania in the summer of 2004 the Dover Area School Board (DASB) had too few textbooks in class for their thousand high school students and so considered buying new biology books, covered at length by Matzke (2004b).

By now the world was going Internet, and it was increasingly easy to find coverage by interested parties in the science camp, bubbling with curiosity to see how good the Intelligent Design movement would be in facing down their first legal challenge. The full testimony has been archived at *Talk.Origins Archive* (2006b). Humburg & Brayton (2005b) followed the case at the *Skeptic Society*, Matzke (2006a) for *NCSE*, with broader summaries of the *Kitzmiller* case by Crouch *et al.* (2006, 29-33), Trowel (2006)

and DeFattore (2007, 1-28). Media coverage by the conservative *Fox News* (2005c,e) and liberal *MSNBC* (2005a) tended to reflect their respective sympathies.

Local comedian Mike Argento (2005a-d) mined the trial for all it was worth for the *York Daily Record*, and two useful books emerged from parallel observers: one by another *York Daily Record* reporter, Lauri Lebo (2008), the other by filmmaker Matthew Chapman (2007). A distant great-great-grandson of Charles Darwin, Chapman's *40 Days and 40 Nights* supplied some especially trenchant character sketches of the participants and the background context—Dover defense attorney Patrick Gillen had drawn the Noachian parallel, though he insisted the trial's duration was only “an interesting coincidence, and it was not by design, Lebo (2008, 176).

To start, Chapman (2007, 9, 19-20) described the Dover Area School District as “constantly broke” due to a shrinking industrial base. Trowel (2006, 876-880) noted rural population decline in York County amid demographic shifts in an otherwise rapidly urbanizing environment followed a pattern seen in several other antievolution-friendly counties (including Tangipahoa Parish, Louisiana, and Cobb County, Georgia), exacerbating local tensions as local traditions had to grapple with the differing beliefs of newcomers.

In Dover, School Board Chair Alan Bonsell (an auto repairman by trade), Sheila Harkins and others got on the board initially to oppose what they thought an overly ambitious school building and repair program undertaken by Aralene “Barrie” Callahan (a Unitarian who would become one of the plaintiffs in the *Kitzmiller* case)—an ironically opposite situation from the free spending conservative Christians on the Vista, California school board of a decade earlier noted in **TIP 1.6**. Clearly the last thing the cash-strapped Dover school district needed was a costly lawsuit, but as things developed, mere fiscal prudence was not going to get in the way of this *Kulturkampf* steamroller.

Without much fuss, Dover's science teachers recommended the district get Ken Miller & Joseph Levine's *Biology: The Living Science*, but curriculum chair William Buckingham would have none of that. In his view, America “wasn't founded on Muslim beliefs or evolution,” but “was founded on Christianity, and our students should be taught as such.” Thus Buckingham objected that *Biology* had a timeline noting the *Origin of Species* but not God or creationism, and even had a problem with the book just mentioning *Darwin's* finches, Chapman (2007, 88). As Miller & Levine was “laced with Darwinism” it should not be adopted until it could be balanced with an appropriate creationist work, and after looking through a list of the options available in the YEC/OEC/ID field, including apparently a “Home Science Catalog” that listed *Of Pandas and People* under the “Creation Science” category,” Chapman (2007, 136), Buckingham settled on *Pandas* as his balancing text. A signal of the intransigence to come: Miller offered to come to the board to directly address their concerns, but this was declined, K. Miller (2015).

Buckingham found a ready ally in Alan Bonsell, something of an overconfident sanctimonious bully with a family tradition to uphold. Bonsell's father Donald had served on the school board and tried at that time to get creationism included in the curriculum, but was thwarted by an attentive biology teacher. The Bonsells and Buckingham reflected a populist local subculture of superficial conspiracy-minded antievolutionary thinking, where knowledge of the “hoax” of evolution was supposedly being suppressed by a Darwinian orthodoxy far removed from their own experience, Chapman (2007, 35, 61).

Alan Bonsell recommended Kent Hovind's *Evolution Is Stupid* video to prove “Intelligent Design” was sound science (an indication of how the term had morphed into a synonym for YEC despite the persistent demurs of the *Discovery Institute*) and followed Ken Ham's *AIG*. Local pastor Jim Grove stepped up to show the Hovind video to educate the citizens of Dover, Chapman (2007, 67, 198-200) and Lebo (2008, 143-146, 217-219). Chapman (2007, 204) particularly gaped at the bald historical illiteracy of Grove, who believed America “was not that immoral when it stayed to its Christian roots,” a tall order to defend given the country's bitter legacy of slavery, the slaughter of Native Americans, as well as the merry witch killing hysteria back at Salem.

But it wasn't just Grove stirring the antievolution pot in Dover. The assistant superintendent for the

district, Mike Baksa, had attended (on the taxpayer's tab) a 2003 Christian college seminar sponsored by the Pennsylvania School Boards Association (!) affirming the legal and educational appropriateness of discussing creationism in school (though mentioned in the subsequent court testimony, just who participated in this event has remained frustratingly vague). Baksa advised Buckingham on how evolution was covered in Christian schools, Lebo (2008, 33-34), while Alan Bonsell pressured the science teachers to balance their instruction with creationism, Chapman (2007, 63-64). It also came out at the trial that the research of *Pandas* and ID Baksa undertook included having his secretary consult the *ICR* website, John Jones (2005).

Teachers toned down their activities as a result. Lebo (2008, 17) noted how biology teachers Jen Miller and Rob Eshbach, both children of pastors, now "avoided the topic of humans and common descent. They brushed over the fossil record." **Deep Time** was a casualty too: "Fearing retribution, Miller stopped using the timeline in the hallway and began teaching solely from the textbook," Lebo (2008, 21).

There was also the incident of Zach Strausbaugh's large evolution mural, noted by Chapman (2007, 61-62) and Lebo (2008, 11-13, 19) but categorized as "astonishing" in the court verdict summary, John Jones (2005). Painted in the 1990s, it had never been displayed in the hall and ended up presented to one of the teachers, who posted it on her chalkboard. But in 2002 Larry Reeser, head of buildings and grounds for the Dover Area School District, didn't like its subject so took it upon himself to take it down and *burn it*. Buckingham was not only on hand to "gleefully" watch this ethically questionable act of theft and vandalism, but adding some veiled extortion to the mix by demanding "that the *teachers agree that there would never again be a mural depicting evolution in any of the classrooms and in exchange, Buckingham would agree to support the purchase of the biology textbook in need by the students.*" The *italic* emphasis was by Judge Jones in his final court verdict.

Adding to this already murky stew, several personal issues appear to have affected the ex-Marine Buckingham's behavior during this period, Chapman (2007, 27-28, 222) and Lebo (2008, 77-78, 102-103). A persistent *OxyContin* addiction stemming from an injury while working as a prison guard put him in rehab for a time, and emotional stress from a string of family deaths (including his parents) didn't help. But beyond those mitigating factors, Buckingham's views emanated from deep in the *Kulturkampf* hinterlands, waxing Hovindish in describing the *ACLU* as the "American Communist Lawyers Union" — Lauri Lebo's father was of a similar opinion—and oh-so-casually favoring nuking Iraq to kill all the Muslims, Chapman (2007, 222, 224-225) and Lebo (2008, 200).

Against this background, though, half of the Dover Board still wanted to adopt the textbook without any caveats, but Buckingham and his allies kept vote after vote deadlocked 4-4 until one of the pro-*Pandas* camp, Angie Yingling, changed her vote in frustration simply so they could move forward, and in August Miller & Levine's *Biology* was selected without *Pandas* attached.

Although the developing debate over *Pandas* elicited warning grumbles from *Americans United for the Separation of Church and State* that the board was treading close to a legal cliff, the Buckingham camp did not pause at the intersection to look both ways before arranging for copies of *Pandas* to be anonymously donated to the school library. The quantity was variously reported as 50 or 60, though a decade later only a single volume had been retained by the Dover School District, with another copy listed as "lost" and no trace of the whereabouts of the remainder, Segelbaum (2015). *Pandas* was listed as a reference text when the *DASB* voted 6-3 in October to amend their curriculum thus:

Students will be made aware of gaps/problems in Darwin's Theory and of other theories of evolution including, but not limited to, intelligent design. Origins of life will not be taught.

At this point a reminder note about terminology is warranted: that for many creationists "origins of

life” meant far more than just the original appearance of life (billions or thousands of years ago depending on one’s perspective), but represented *all* the origin of species topics objected to by antievolutionists (and which for the YEC branch can readily spill over into geochronology and cosmology issues).

The overt inclusion of ID made the papers and soon the *NCSE* and *ACLU* were following the case—the *ACLU* having apparently been alerted to the Dover board’s activities by Steve Stough, a conservative Republican Christian science teacher and track coach in the nearby Southern York County School District, who also opposed Intelligent Design, Lebo (2008, 48-50).

The Dover board in turn consulted with the *Thomas More Law Center* (TMLC) of Ann Arbor, Michigan. Organized in 1999 by *Domino’s Pizza* founder Thomas Monaghan, a devout Catholic, and former Michigan prosecutor Richard Thompson, the *TMLC* was conceived as a *Kulturkampf* religious defense “ministry” that would use the courts to fight secularism in society (Rick Santorum was on their board), Lebo (2008, 26-27). Chapman (2007, 44-45) described the *TMLC* as staunchly defending free speech when it came to antiabortion activists and those favoring Christian images on public property, but less supportive for those disapproving of the conservative status quo. Lebo (2008, 135-136) noted that Thompson’s court manner varied from disinterested to accusatory. He tended to grandstand more for the public and media (and would find many opportunities for that).

More broadly, Lebo (2008, 36) suggested that the climate of the 2004 election year, rippling with President Bush’s “family values” rhetoric, signaled to conservative evangelicals that an attack on evolution might succeed this time. The President himself would even remark on the desirability of teaching both sides of the evolution issue in a press conference as the Dover Intelligent Design trial was reaching its conclusion, prompting some hole-plugging PR repair work by Bush’s pro-evolution science advisor, John Marburger, Branch (2005) and DeVore (2005).

The Dover case was right up their alley in another way: the *TMLC*’s Robert Muike was already very keen on *Pandas*, having urged several school districts to buy *Pandas* (such as Charlotte, Virginia in May 2000) and the retired Marine had become convinced of ID from reading it himself. The *TMLC* had been searching for a good test case on intelligent design, Matzke (2006a) and Lebo (2008, 27-28). Muike’s efforts were just one link in a chain of failed attempts to get *Of Pandas and People* adopted as a supplemental text, from Bennett (2000) on an effort in Idaho, to Sullinger (1999), Matsumura (2000a) and Stephens (2002c) regarding Pratt County, Kansas, where the state biologist of Kansas, Chris Mammoliti, insisted that *Pandas* represented “pure science” and no religion. *TMLC* offered to get involved *pro bono* in a 1999 effort by creationist Karl Priest to deploy *Of Pandas and People* in a West Virginia school district, but their board heeded the advice of the *NCSE* and only allowed donated copies to be added to their libraries, sparing Kanawha County its withering moment in the spotlight that Dover would endure in the hands of *TMLC* five years later, Eugenie Scott (2015a-b).

Lebo (2008, 40) noted a shift in rhetoric between June and July 2004 after the *TMLC* got involved. The explicitly creationist Bonsell and Buckingham began using “intelligent design” as the label, and spoke of children’s education rather than supporting Jesus. Bonsell talked of ID a scientific theory, an alternative to Darwinism—though not necessarily knowing anything about either.

After four board members left (several in protest over the curriculum change) the *DASB* appointed four ID-friendly replacements. One of those resigning over the *Pandas* ID issue was Casey Brown. A Christian herself, she objected to having been asked twice over the previous if she’d been “born again.” As far as she was concerned, “No one has, nor should have, the right to ask that of a fellow board member,” Lebo (2008, 46-47). Brown’s replacement was staunchly pro-ID Pentacostal Pastor Ed Rowand, who demanded reporters reveal their religious views before he would answer their questions. Lebo (2008, 93) refused: “I said it was none of his business, especially since intelligent design wasn’t supposed to be about religion.”

Amid the mounting scrutiny, the unified and emboldened *DASB* issued a press release that included

a statement all biology teachers were to read to their classes in January when they got to the evolution unit:

The state standards require students to learn about Darwin's Theory of Evolution and to eventually take a standardized test of which evolution is a part.

Because Darwin's Theory is a theory, it is still being tested as new evidence is discovered. The Theory is not a fact. Gaps in the Theory exist for which there is no evidence. A theory is defined as a well-tested explanation that unifies a broad range of observations.

Intelligent Design is an explanation of the origin of life that differs from Darwin's view. The reference book, *Of Pandas and People*, is available for students to see if they would like to explore this view in an effort to gain an understanding of what Intelligent Design actually involves. As is true with any theory, students are encouraged to keep an open mind.

The school leaves the discussion of the Origins of Life up to individual students and their families. As a standards-driven district, class instruction focuses on the standards and preparing students to be successful on standards-based assessments.

Evidently mindful of at least some of the hornets flitting around the nest they were about to injudiciously whack with a big stick, the press release also contained a disclaimer to the disclaimer: "The Superintendent, Dr. Richard Nilsen, is on record stating that no teacher will teach 'Intelligent design', Creationism, or present his/her or the board's religious beliefs."

But that cat was long out of the bag. Telling examples were recounted by Chapman (2007, 136, 151-152, 161-163). Two of the resigned board members, pro-ID Jane Cleaver and creationist Noel Wenrich, felt their own religious convictions were being questioned in the heat of a controversy that usurped religion as a personal family/church matter and forced it into an all too public God-or-atheism school arena. Wenrich had voted against the disclaimer because it involved public funds and invited a potentially costly lawsuit, but when "Buckingham called Wenrich an atheist for not supporting him, Wenrich threatened to punch Buckingham," Lebo (2008, 47).

On the other side, Dover resident Julie Smith's daughter Katherine had been in a Bible Club and challenged her one day, "Well, mom, evolution is a lie, what kind of Christian are you anyway?" Lebo (2008, 6, 146, 216) could add the experience of two of the Kitzmiller plaintiffs, "Bryan and Christy Rehm, who teach Bible school and sing in their church choir, but who were called atheists by their neighbors." When Christy (who would still be asked if she was an atheist even after the verdict came down) confronted Ed Rowand about why he thought he could speak for God, and reminded him that she and her husband were churchgoing Christians, Rowand called her a *liar*. And Lebo's own father, a fundamentalist Christian, believed

that those who oppose the school board are leading an attack on Christian values. In his mind, this was just another ACLU-backed attempt to destroy God.

But what Dean Lebo, my father, refuses to believe, and what I have been unable to make him understand, is that what played out here in our community was faith based on deception. This isn't a story about God versus science, but one of truth versus lies. *Lebo (2008, 2-3)*.

At the trial, Richard Thompson would ask the plaintiffs whether any of them had been harmed by the "simple curriculum change" the *DASB* had made (evidently expecting them to answer no)—which backfired as personal examples of intimidation and rancor were recounted, impaling the Dover policy on

the Establishment Clause Lemon Test prongs, Lebo (2008, 126-129, 197-198). Trowel (2006, 870-876) noted the divisive “us versus them” character of current antievolutionism, and Chapman (2007, 153) traced a grim apologetic phylogeny for this caustic situation: “the cause of this pain began with men like Behe, was passed down through men like Buckingham, and didn’t stop until families were acrimoniously shouting in the kitchens of their homes.”

Dover had moved way beyond an argument over which textbook a school district should buy or the rarified forensics of Irreducible Complexity. And there were further warning clouds on the ID horizon.

According to the court testimony in *Talk.Origins Archive* (2006b) Buckingham approached the *Discovery Institute* for help and examined material they provided, such as the *Icons of Evolution* video—which “Buckingham apparently bullied teachers to watch—twice,” Padian & Matzke (2006). On this point, DeWolf et al. (2007, 10) hair-split that the *Icons* video and companion study guide “focused only on scientific criticisms of Darwin’s theory. They did not discuss ID.” Which begged the question whether Buckingham would be able to notice the difference between a project that didn’t discuss ID and one that supposedly did.

But the *DASB* policy’s plan to sow doubts about evolution while dangling *Pandas* as the only recommended resource began to trip over the evolving position of the *Discovery Institute*, now seeing the legal dangers of actively trying to teach ID in schools, Lebo (2008, 62-63). As the water carrying of the creationist Sorcerer’s Apprentices in Dover began to slosh over the rim of the carefully filled **TTC** apologetic bucket the *DI* was trying to popularize and drown the first attempt for ID to pass a court test, *Discovery Institute* (2005g-i), DeWolf et al. (2006) and Michael Francisco (2006a-b) turned on the pumps and disapproved of the Dover approach.

This might be seen as especially ironic given the prominent part so many of their camp (Behe and Stephen Meyer most notably) had played in the revamped *Of Pandas and People* that the *DASB* was relying on as their assigned authority. But it only reflected the grim reality of the non-progress of Intelligent Design as an ongoing scientific concept—signaling how step by step the verbal gymnastics of the antievolution campaign since *Edwards v. Aguillard* has had to backpedal on the public display of their own resources and roots lest in the flush of “teach the controversy” that get subjected to some “critical analysis” too.

The *ACLU* and *AU* went ahead with their legal challenge in December, involving 11 Dover parents. At the press conference on the filing, a creationist couple waved a sign “*ACLU Censors Truth*” and afterward passed out Kent Hovind literature, Lebo (2008, 64-65). The lead plaintiff, Tammy Kitzmiller, began receiving abusive letters, Chapman (2007, 154-155) and Lebo (2008, 90). Likely from a single deep-dipped poison pen, they belied the “this isn’t about religion” mantra. Kitzmiller was variously accused of hating God, being headed for hell and liable to get shot along the way just like “Madelyn Murray” (*sic*), favoring homosexuality (riffing off Jerry Falwell’s “Adam and Eve, not Adam and Steve” quip), and escalating to the warning that “because of heathens like you” God might be about to destroy America with tornadoes (more below on *applied creationist meteorology* with Pat Robertson).

Meanwhile, the *DASB* voted 7-0 to engage the legal representation of the *Thomas More Law Center*. The 0 in question was Angie Yingling, disengaging from a board now conspicuously dominated by what she described as “religious zealots preaching from the shadows” and formally resigning in February 2005.

By now there were more lawyers on the case than there were parties, a far-ranging lot of personalities and positions, but all knowing their way around a court room. Incompetence of legal representation would not be a factor here. And all the players recognized that this was not going to be a minor episode of litigation—*Kitzmiller* promised (or threatened) to be important, historic. News media flocked to the trial, surrounding the courthouse with TV trucks and crowding the courtroom with gear and spectators. Dover was going to be noticed. *Everything* was going to be noticed (at least by some).

Depositions were taken from Buckingham, former chair Alan Bonsell, and new president Sheila

Harkins, during which it was discovered that none of them seemed to clearly understand what this “Intelligent Design” was that they were so resolved to promote, Lebo (2008, 69-84, 166). When eventually called to testify, the elderly Jane Cleaver kept calling it “intelligence design,” Chapman (2007, 238). Cleaver and Heather Geesey had relied on Buckingham and Bonsell’s assurances that ID was a scientific theory, though Geesey didn’t have all that clear a distinction between ID and creationism even when quizzed by Judge Jones, Lebo (2008, 165-167). And what did Buckingham think ID was? Asked to define the idea in his deposition, Buckingham decided “back through time something, molecules, amoeba, whatever, evolved into the complexities of life we have now,” which Chapman (2007, 220) drily noted wasn’t all that bad a general layman’s take on the *evolutionary* view Buckingham thought he didn’t believe in.

“Board members spoke of taking their case all the way to the U.S. Supreme Court, but they lacked the commitment to understand what they were fighting for. They wanted it taught to children, but were too lazy to learn about it for themselves,” Lebo (2008, 79). Their stunning lack of curiosity was no surprise to me—it is yet another of those diagnostic *tortucan* traits.

And then there was the *Pandas* book, which the contenders on all sides had problems with due to its dated 1993 content and arcane approach to issues students might well have trouble making sense of outside the narrow focus of the creation/evolution spotlight, Chapman (2007, 96, 118, 124-125, 188, 234-236) and Lebo (2008, 219). While Sheila Harkins and Buckingham at least had appeared to have actually read the book (and remained firmly ebullient about it even while not comprehending it), Bonsell hadn’t read *Pandas* at all. Heather Geesey had a copy, but didn’t open it—which may not have mattered all that much given that she didn’t know or seem to care what ID involved anyway. Chapman (2007, 236) did not pull his punches in summarizing how *Pandas* ended up in Dover’s school library:

Here it was in its most naked form: an auto repairman appointed an ex-cop and corrections officer, a biblical literalist without a shred of knowledge, to decide which books the kids should learn from—and a woman who had no curiosity about anything, even her own most deeply held beliefs, weighed in in support.

When the time came to read the mandated disclaimer, Dover’s biology teachers refused (invoking their own academic freedom not to be required to profess as scientific something that wasn’t), prompting the school administrators to jump in to present the disclaimer for them, accomplished as fifteen students and all of the teachers walked out, Matzke (2004b) and Mervis (2005). The *TMLC*’s Richard Thompson, “who touts the importance of academic freedom, immediately blasted the teachers’ decision,” Lebo (2008, 82).

The customary duel of expertise ensued as *Cornell University* and their “Paleontological Research Institution” dispatched a letter opposing the Dover ID position, Allmon *et al.* (2005). When 30 faculty members of the *University of Pennsylvania* biology and philosophy departments directed an open letter of protest to the *DASB* over their ID policy, though, Richard Thompson launched into quite a rant:

If the level of inquiry supporting your letter is an example of the type of inquiry you make before arriving at scientific conclusions, I suggest at the very least, your students should get their tuition money back, and more appropriately, the University should fire you as a scientist. *Matzke (2004b)*.

Thompson strolled onto some even thinner ice when he went on to question the relevance of *philosophy* to this science issue—which would be news to Phillip Johnson or Alvin Plantinga or John Calvert fervently blowing the thoroughly philosophical anti-naturalism ram’s horn for ID (as well as running the risk of driving over their philosophy professor Stephen Meyer). In “*déjà vu* all over again”

mode, Thompson's *Kitzmiller v. Dover* game plan devolved into a display of some of the "credible scientists" supporting the purely secular purpose of Dover incorporating the religion-free science of ID, this time courtesy of the *Discovery Institute*. But as with Creation Science in *McLean v. Arkansas* twenty years before, that was easier said than done.

The defense planned to call eight witnesses. The 5 technical science ones were all orbiting the *Discovery Institute*: Michael Behe, William Dembski, Stephen Meyer, University of Memphis rhetoric professor John Angus Campbell and University of Idaho microbiologist Scott Minnich, whose expertise did at least actually involve that ID icon, the bacterial flagellum. The sociology of science would be addressed by Steve Fuller flown over from the University of Warwick in the UK. Fuller (2005) flagged his perspective by tersely dissenting from the *SciPolicy* (2005) amicus brief and accompanying Barton *et al.* (2005) editorial opposing Intelligent Design.

The appropriateness of ID as an invigorating rising science that promoted "critical thinking" as a fundamental skill distinct from religious presumptions would be further defended from the *Kulturkampf* by Warren Nord (recall his testimony in Kansas covered earlier) and Dick M. Carpenter II, a University of Colorado education professor and *Focus on the Family* analyst whose "Love Won Out" campaign confidently sought to "cure" gays, Chapman (2007, 207). Carpenter's libertarian family focus included Dick Carpenter (2001) warning the reparative therapy ideologues at *NARTH* about the threat of gay activism in schools. That was when Carpenter was still at *Colorado Christian University*, an institution committed to biblical inerrancy that incorporates "analysis of the biblical texts relating to creation" in its course on "Evolutionary Theory" and requires regular chapel attendance for students seeking advanced degrees, *Colorado Christian University* (2012a-c).

Six witnesses were scheduled for the plaintiffs to defend the scientific status of evolution and consequently its appropriateness for students to learn in Dover: Jeffrey Shallit (brought in from the University of Waterloo in Canada) was set to directly rebut Dembski's theoretical complexity arguments. Robert Pennock and Barbara Forrest would cover the philosophy of science and the history of the ID movement, while Brian Alters of the *NCSE* would address the educational implication. Ken Miller (of obvious relevance as the co-author of Dover's approved science text) and paleontologist Kevin Padian (2005) would cover the biological science and fossil issues.

Or at least that was the plan. But as the trial date neared, fractures in the ID edifice began to show. The planned deposition of Campbell never took place. Presumably Campbell would have reflected the standard ID model already fielded in *Darwinism, Design, & Public Education* (with Behe, Dembski, Fuller and Nord also contributors), Campbell & Meyer (2003). There would have been the mysterious origin of life issue, subsequent biological complexity supposedly beyond the reach of naturalistic evolutionary processes, and the "usual suspect" of the Cambrian Explosion to stand in for all the hundreds of millions of years of paleontology ID has so far managed not to explore (such as the menagerie of Mesozoic dinosaurs), and elements of this did trickle into the Dover defense.

Discovery Institute (2005e) did take time out to do a preemptive lampoon of Barbara Forrest's testimony, which apparently did not phase Forrest (2006b) in the least, drolly recalled by PvM (2007b) at *Panda's Thumb*.

While the *TMLC* had been taking seriously the *DI*'s earlier plans for recommending ID material to be included in public education, such as the DeWolf *et al.* (1999) ID curriculum guide, the "not ready for prime time" quality of ID efforts was set to get poked by the same Lemon Test prongs that had deflated Creation Science in the 1980s, and the law firm suddenly found the *DI* tacking in a new direction: educators shouldn't mandate including ID after all, and please don't suggest we had ever thought otherwise. Only Richard Thompson was not shy about reminding them that they *had* thought otherwise, occasioning some icy moments at the "Science Wars" forum on the Dover affair sponsored by the *American Enterprise Institute* in October 2005.

When the moderator turned from this food fight to invite Ken Miller to comment, he first replied,

“Do we have to? I’m *really* enjoying this. That is the most fascinating discussion I’ve heard all day,” NCSE (2005b). He did go on, though, to remind listeners of what was at stake regarding teachers faced with the Dover disclaimer, where their own state’s teacher code of ethics enjoined them never to “knowingly present false information to a student.” If “academic freedom” really was on the block at Dover, “how about the academic freedom of the teacher not to present false information.”

As more of the ID stage scenery caught flames and cascaded onto the collapsing design temple, Dembski and Meyer were now insisting on having their own independent legal representation. Dembski had apparently become concerned over the legal issues posed by his connection with the *Foundation for Thought and Ethics* who were behind the *Panda* text that was the centerpiece of the case. Meyer’s position in the upper echelon of the backpedaling *Discovery Institute* may have been shadowing his rearview mirror. As the *TMLC* dithered over this legal representation issue, Dembski and Meyer bailed out (causing Shallit’s planned response to Dembski to be cut as well), though available as Shallit (2005a). Nord and Carpenter soon followed suit (exact reasons unspecified).

That left just Behe, Minnich and Fuller to carry the ID ball in Dover. Together they represented an especially narrow trifecta of fields (biochemistry, microbiology, and the sociology of science) that covered the technical ground (genetics, developmental biology, ecology, systematics, paleontology, etc.) in the same way as a slice of Swiss cheese on a very large scientific sandwich: it’s hard to conceal much of the meat underneath.

Much as William Jennings Bryan’s Genesis joust with Darrow was the lasting image from the Scopes Trial, the main Dover trope was Michael Behe going into a crash and burn stall as his limited familiarity with the relevant technical literature in biology became evident under cross examination. That material is best covered in other chapters (though we’ll return to some of Behe’s testimony shortly), but the underlying impact of Behe’s poor showing on the stand at Dover was that no matter how quickly supporters tried to move the goalposts, it still wasn’t going to be fast enough to hide the fact that they didn’t actually have a ball on the field.

On this vital point of ID’s need to *earn* its place at the science education table, not be granted it by administrative fiat, Minnich and Fuller did not give Behe any help.

In court, Robert Muisse guided Minnich gently through the minefield, casually pirouetting around ID’s unearned scientific credibility by having Minnich agree that intelligent design shouldn’t “be fully integrated into a science curriculum” but that *Pandas* would nevertheless be an “advantageous” supplement to make the students of Dover “aware” of that ID theory whose very substance was a point at issue and which they apparently weren’t going to get much of a look at.

Steve Fuller’s testimony continued along this path, Kauffman (2005), *MSNBC* (2005b) and Raffaele (2005a). Fuller, who struck Chapman (2007, 210) as rather a hyper sort, deployed that energy on the stand to expeditiously dig the ID conceptual hole even deeper:

“Well, I mean, it’s too young basically at the point. And it hasn’t really done all of the theoretical elaboration on the recovery of the appropriate history to set itself in a proper tradition that then would kind of field the imagination to come up with the right kinds of experiments.”

This was essentially to say that intelligent design was not just half baked; it wasn’t even aware of what ingredients it needed to mix together on the counter top. And yet, to continue the food metaphor, its advocates were already trying to force what few uncooked and often old ingredients it did have down the throats of innocents. To argue that “thinking like God” might be a wonderful spur to the imagination was terrific. To cause indigestion in children was not. Worse than irresponsible, it was lazy. *Chapman* (2007, 213).

While Fuller would cut no slack for a “Darwin-mongering” museum display about Darwin, covered by Ganguli (2005), Fuller’s slack-cutting for Intelligent Design knew no bounds. In order for future ID theory to be developed, students would need to learn about it in school first, putting the scientific process backwards, turning the educational system into an incubator for ideas before they had matured, rather than the fuddy-duddy old way of using schools to pass on seasoned knowledge and experience. The embryonic ID theory might need a little special care to nourish it along, something to insulate it from the harsh glare shining on the regular scientific establishment—making the classrooms of Dover something like the first installment of an “affirmative action” plan for ID, catching the eye of local humorist Argento (2005b).

All of which put Fuller rather far from what was, after all, the point of the court case: the choice of a science textbook and the appropriateness of attaching *Pandas* to it as a specified supplement. Which issue the plaintiff’s attorney Vic Walczak summarily hammered home in his examination of Fuller. “Walczak then established that Fuller was not familiar with Miller and Levin’s Biology book or with *Pandas* and had no expertise in biology, paleontology, education (science or otherwise), Behe’s irreducible complexity, or Dembski’s specified information theory,” Chapman (2007, 215). In her decadal postmortem of Dover, Eugenie Scott (2015c, 7.8) pegged Fuller as “the winner of the *Kitzmilller* ‘why did we put this guy on the stand?’ award.”

Norman Levitt (2006) explored the far crannies of someone whose “intellectual radar” had gone “on the fritz” by noting how Fuller had been “unable to detect deliberate nonsense, coarse and silly blather easily pegged as a sophomoric joke” concerning the notorious Sokal hoax, where a trendy postmodernist social science journal readily published a scientifically preposterous screed intentionally crafted by physicist Alan Sokal to excite Pavlovian disbelief from anyone with a scintilla of scientific knowledge, the affair described in all its surreal glory by Sokal & Bricmont (1998).

On his turn on the stand, Behe clearly wanted to keep ID and *Pandas* isolated from any discussion of common descent (which Behe has says he has no problem with). Pressed by Rothschild’s questioning, though, Behe first insisted a student wouldn’t come away from reading *Pandas* doubting that very thing—this in spite of the fact that *Pandas* never accepted any instance where animals *were* descended by common descent (from birds and mammals to our own human lineage) and I know of no one in the antievolution community has ever been invoked *Pandas* to that end. Then again, Behe casually declined to evaluate any of the paleontological assertions in the book (demurring on account of his being a biochemist).

Only after a lengthy back and forth did Behe acknowledge that *Pandas* did object to common descent on a factual level in a way ID didn’t at its theoretical one. Which meant the disclaimer was trying to recommend a book to explain ID that actively conflicted with it (at least if Behe’s narrow definitional catwalk was taken as the one and true design model). In this respect Behe was unknowingly reprising Dean Kenyon back in Louisiana in the 1980s, trying to remove the *Creation* from Creation Science—this time, it was the *Intelligence* in Intelligent Design.

While the wishy-washy performance of the three Expert Witnesses for Intelligent Design was but a reflection of the wishy-washy character of Intelligent Design theory up at the top, in the end it was the genesis of *Of Pandas and People* as a set of pages with text assertions on them, and the behavior of the human actors on the Dover School Board who sought to make those assertions available to their students, that peeled back the cover on the creationist grassroots.

Prompted by the tenacious Barbara Forrest (2005; 2006a), the plaintiff’s legal team had explored how the *Pandas* book had come to be. It took some subpoenas, but eventually the *Foundation for Thought and Ethics* coughed up the early drafts of *Pandas*, and the findings were rolled out at Dover. Padian & Matzke (2009, 35) summarized how “the draft book’s title changed from *Creation Biology* (1983) to *Biology and Creation* (1986) to *Biology and Origins* (1987), and finally to *Of Pandas and People*,” with two 1987 drafts preceding the 1989 first edition. Looking through the drafts year by year

the chronology was obvious: as the court rulings of the 1980s marked the failure of all overtly creationist Balanced Treatment legislation, the plans to market their new textbook to that purpose required retooling the product.

Not that they changing any of its *content*—they just *rephrased* selected bits, terminology that had grown suspect due to the new legal roadblocks. Things like “creationists”—which now became “design proponents.” Meaning *Of Pandas and People* was an “Intelligent Design” textbook (and not the “Creationist” one it plainly was before the adjustment) only in the sense that the Find/Replace button had been added to the word processor toolbar.

Except in one telltale instance the paste process had been done a mite too hastily, without proofreading the result: “cdesign proponentsists,” Matzke (2005e). Though, as it happened, the cut-and-paste had been so pervasive in the new *Pandas* that the “cdesign proponentsists” example (a “transitional form” if ever there was one) hadn’t been used at the *Kitzmiller* trial, Forrest (2008c, 191). Lebo (2008, 2010) noted that the draft version of *Pandas*’ planned replacement, *The Design of Life*, had begun to replace “intelligent design” with “sudden emergence.” By the time it saw print, Dembski & Wells (2008, 77) had moved on to “abrupt appearance” instead.

Lebo (2008, 141-142) took note of Thompson’s effort to drag Forrest onto his *Kulturkampf* turf by asking her if she believed in the “immortality of the human spirit” (the question was disallowed). Keep reminding yourself: ID doesn’t have *anything* to do with religion.

In the meantime the gears of politics had ground on. In the November 2005 election, all the pro-ID school board members were voted out of office, prompting Pat Robertson to don the mantle of a Jeremiah or Samuel and declare that the voters of Dover had just banned God, Elsner (2005). And they’d better not pray to God if anything bad happened to them either (not that the track record of prayer diverting hurricanes or repairing earthquake damage has been particularly impressive to date, in or outside of the *700 Club*’s magic circle). Many religious citizens in Dover were not amused by Robertson’s arrogant presumption of speaking for the Almighty, Lebo (2008, 180-181).

With the absence of a viable Intelligent Design theory and the transparent creationist roots of *Pandas* exposed, only one more debacle was in store for the Dover defense, related to the mysterious donation of *Pandas* to the Dover library and the degree to which the board had been advancing its use in terms of *creationism* rather than Intelligent Design. “In a memo, Dover’s principal, Trudy Peterman, asked about the creationist conversation and challenged the administration. Nilsen, the superintendent, dismissed the woman, saying she had a habit of exaggerating. And later he gave her a bad performance review,” Lebo (2008, 20).

But that wasn’t the end of it. All the *DASB* players were called as witnesses in court, and one of the longest stretches of Lebo (2008, 66-84) was devoted to this matter, following as board members piled over one another lying about their actions on the stand. Apparently Richard Thompson and the *TMLC* legal team knew how it would sink their case on the spot were they to admit their own opinions and actions, and soon someone(s) were busily destroying audio records of the June meeting where the troubling subject had come before the board—Sheila Harkins even publicly accused local reporter Joe Maldonado (whose background included attending Liberty University!) of lying in his newspaper accounts, Lebo (2008, 88, 122).

Evidently failing to learn the lesson of Watergate stonewalling (especially when you aren’t sufficiently thorough about gathering up *all* the available incriminating breadcrumbs), the local *Fox News* affiliate had Buckingham on camera explicitly connecting the textbook search to *creationism*. *Et tu, Fox News* (2005d)?

Maybe it was the *OxyContin* speaking when Buckingham “blamed newspapers he claimed he didn’t read for making him say something he insisted he never said,” Lebo (2008, 163).

And it wasn’t over, Lebo (2008, 168-172, 199). In his court deposition, William Buckingham had explicitly denied knowing anything about who had financed the *Pandas* donation, but cross examination

established that it was *Buckingham* who had raised money for their purchase at his church. When Alan Bonsell marched down the same path, the plaintiffs' attorney didn't need to explore this, for by that time a distinctly *not pleased* Judge Jones jumped in to question Bonsell directly. Even the *TMLC* must have taken note of that. And yet even after that, Bonsell and Buckingham denied having lied in the case.

Borderline dissembling there may have been at *Scopes* in 1925 or *McLean* in 1982, but no one there could have been accused of *lying under oath*. The irony of this was not lost on Argento (2005c-d), who lamented in the latter post how "it's really a sad day for America when public officials can no longer lie convincingly enough to get it past a federal judge."

This spectacle of hypocrisy had involved more than just the destruction of damning audio records. Lebo noted the board had also changed the rules on public comments to squelch debate, evidently in the vain expectation that sweeping the debris under the rug could be done without having a much bigger rug.

Publicly, Dover's school board members spoke of their commitment to sound science education, but privately, behind closed doors, they spoke of leading this nation to a Christian revolution.

And along the way, they bore false witness, and they slandered others. *Lebo* (2008, 2).

Lebo (2008, 103) was much affected by her evangelical father's failure to condemn the board's lying, touching upon the third rail of the absolute morality the Bible supposedly offers. As can be seen in other cases, especially the matter of human slavery discussed in **Chapter 6** of Downard (2004), of what good is an absolute moral framework if you aren't always going to absolutely *use* it?

By this time it didn't require the Delphic Oracle to see where things would be going in the verdict by John Jones (2005), covered by the media in general sources like Raffaele (2005b), as well as the inevitable supportive commentary from the secular camp, such as Padian (2006) or Rosenhouse (2006b).

The Dover case had fallen apart based on the religious roots of *Pandas* and ignorance of ID on the part of the Dover board, and only compounded by Buckingham and Bonsell's perjury. With no sliver of hope for any "secular purpose" for the disclaimer, the Dover disclaimer was doomed. Jones remarked on "the activism of an ill-informed faction" on the *DASB* who had "so staunchly and proudly touted their religious convictions in public, would time and again lie to cover their tracks and disguise the real purpose behind the ID policy." Overall, Jones' exasperation came through when he lamented the "breathtaking inanity" of the Dover boards' antievolution policy.

But both sides had affirmatively requested that the court go farther and rule on whether ID was science—a detail that somehow evaded the legal eye of Discovery Institute apologists DeWolf *et al.* (2006, 25-28, 103-123), who mentioned only an amicus brief by 85 ID-favorable scientists (including Caroline Crocker, Michael Egnor, Ralph Seelke, Granville Sewell, and Jonathan Wells, along with a rather self-interested Dean Kenyon and Stephen Meyer, and OEC *Reasons to Believe's* Fazale Rana, and creationist Mark Toleman) that recommended the judge not rule on that issue. We'll have more to say about Toleman a bit later.

Coming into the litigation, the *TMLC* team would have liked nothing better than for a federal judge to put a stamp of legal approval on their enterprise at last—Richard Thompson had optimistically issued a press release proclaiming "A Revolution in Evolution is Underway," Lebo (2008, 85)—while the *NCSE* set would rest much easier if the law dropped a big anvil on this operation in its very first stay in the dock. Jones' unqualified answer that ID *wasn't* science signified that the plaintiffs' findings of fact and the closing argument of Rothschild (2005) carried more weight with him than the slim pickings supplied by Behe, Minnich and Fuller.

Dover moved on after the ruling, Lebo (2008, 215-216, 221-222). The science teachers heaved a collective sigh after Jones' verdict, now able to teach their subjects properly, openly, not on the sly anymore, though Bonsell remained convinced that their side would have carried the day had they only appealed the case to the Supreme Court. Buckingham thought Jones' ruling was "unjustifiable homicide," but received little comfort from a religious community that scapegoated him, and his fellow board members ignored him, while his worsening health put him in the hospital. Of the ID supporters in Dover, Lebo's final judgment: "They have found no humility."

Humility was in equally short supply over at the *Discovery Institute*, as they immediately castigated Jones (an appointee of George W. Bush with the support of Rick Santorum) as an "activist" judge of the worst sort, prompting Padian & Matzke (2006) to remind that "the DI uses the same public relations firm as the 'Swift Boat Veterans' did." This "activist" tag soon became a standard refrain in *DI* apologetic circles, such as the Forum posting on Judge Jones at *Overwhelming Evidence* (2007), a short-lived website devoted to defending ID claims.

Judge Jones commented on his ruling and the reaction to it in lectures and interview, Cambias (2006), John Jones (2006a-b) and Kimmel (2006)—that latter for *Dickinson Magazine* at Jones' alma mater, *Dickinson College* in Pennsylvania. Parenthetically, I was struck by some of *Dickinson's* notable alumni: Dred Scott jurist Roger Taney (1777-1864) class of 1795, President James Buchanan (1791-1868) class of 1809, all the way to Barry Lynn class of 1970. Rosie O'Donnell attended but did not graduate. Jones continued to lecture on the case and remark on its persistent *Kulturkampf* critics, such as Bill O'Reilly and Ann Coulter, Cohn (2008), and he demonstrated a deft clarity regarding the legal and historical issues when interviewed for a genetics audience by Gitschier (2008), especially his responsibility to decide the scientific side of the case based on what evidence was presented in court. And for *lagniappe*, Judge Jones would come up again years later as among the many federal jurists striking down gay marriage bans around the country, Eric C. Miller (2014a).

Now at this point in the tale (the bigger picture of the "evolution" of the Intelligent Design movement, not just the end game at Dover) the proponents of ID were confronted with a genuine spectacle of a community torn apart in so many ways by the equation of evolution with atheism, so that opposition to "Darwinism" became a scapegoat for larger *Kulturkampf* obsessions, and some people were demanding of other people that they take sides. How then would the ID movement react to that? In the same way that they "reacted" to Punctuated Equilibrium back in section 1.3. They didn't.

That the *DI* would not like Jones' ruling was hardly a surprise. But what is most interesting from a scholarly methods point of view (especially when turned to detecting the diagnostic signs of some deep tortucan ruts) is not that they trotted out the fast-congealing Intelligent Design brand (the compartmentalized thinking of Behe and Dembski and Meyer about biology, information and the Cambrian phyla) but what *didn't* crop up in their arguments: any mention of what those creationists were doing in the real world of Dover (channeling Kent Hovind as easily as *Icons of Evolution*, and not above burning murals or banning time charts or bearing false witness in court to keep what they saw as offending science out of sight). The names Buckingham, Bonsell, etc. *never* appeared in any of their assessments. *Out of sight, out of mind.*

Postings at *Evolution News & Views* and the *Discovery Institute* during the trial period called attention to Luskin (2005a) on "The Positive Case for Design" and other iterations of *their* position, but no recognition whatsoever of what the participants in Dover thought or did. Robert Crowther (2005) even saw fit to link to conservative blogger Scott Ott (2005), whose satirical *ScrappleFace* proclaimed "Dover Evolution Lawyer Eats Counsel for Defense" in an "impromptu display of the survival of the fittest." But no snarky humor was aimed at any of the otherwise invisible Dover board members and the many episodes so ripe for sharpened humor.

Because Jonathan Witt (2005b-e) and John West (2005b-d) repeatedly posted on the case, these omissions stood out all the more. Witt managed to "summarize" at length the issues at Dover and assail

Jones' "bogus" and "pernicious" conclusions, while West felt Jones had "delusions of grandeur," without departing from the *Discovery Institute* designer script. Witt made use of the expected Behe v. Miller biological talking points and West focused on the (slim) list of "peer-reviewed" works by the *DI* set that furthered the *DI* views (more on that regarding Michael Behe shortly)—but not a whiff of the busy creationists Buckingham and company who were the reason why there was a court case to begin with.

As for the creationist provenance of *Pandas*, which Witt termed "atheist-activist Barbara Forrest's mythological history of intelligent design," Jonathan Witt (2005c,e) and John West (2005d) so thoroughly laundered that record that you'd never guess Dean Kenyon had ever waxed enthusiastic over the YEC works of Henry Morris. DeWolf *et al.* (2006, 21-22; 2007, 21-24) and Casey Luskin (2014am) continued this tradition.

Witt's gymnastic skill here may be compared to his parsing of Intelligent Design's medical supporters mentioned back in section 1.6. Pim van Meurs (2005b-d) and Sandefur (2005b) dissected Witt and West's legal logic parade for *Talk Reason*. Beazley (2006) performed the same task at the *NCSE* for the book length iteration of the *DI* Dover position by David DeWolf, John West & Casey Luskin, DeWolf *et al.* (2005).

John Buell eventually weighed in to set the record straight himself with the "Untold Story" of *Pandas* in *Foundation for Thought and Ethics* (2013), duly recommended by *Uncommon Descent* (2013j). Buell's account may be compared to its genesis and publication history noted by Scott (2007, 61-63).

An intriguing window into his historical sequencing skills, Buell averred that *Pandas* couldn't have been a retooled creationist textbook (1) because their general editor (non-YEC) Charles Thaxton had been thinking about the theory of intelligent design before then (true enough, at least insofar as origin of life questions were concerned), and (2) even though its main author (Davis, who was YEC himself—Buell didn't dwell on Kenyon, or his endorsement of Henry Morris) was given leave to use *creation science* and *creationism* freely in his draft, "creation" was only used as a placeholder until the design rhetoric could be worked in, which (3) didn't happen anyway in conjunction with the *Edwards* ruling because *Thaxton* (not an author of the *Pandas* text) had been thinking his more generalized design before then and elements of this were worked into *Pandas*.

Buell's chronology of events didn't collate the various texts on a precise timeline (ironically another **Map of Time** issue) and didn't allude to the "design proponentsists" example. Most breathtakingly, though, Buell insisted (4) that those miscellaneous terminology substitutions couldn't have turned a creationist book into an ID one because the main arguments hadn't been changed—which was, precisely the point the plaintiffs argued at the Dover trial. The only thing that *needed* to be adjusted in an otherwise creationist-friendly text (that assiduously avoided specifying the creator or taking a stand on the divisive age of the Earth question while otherwise presenting familiar creationist positions on fossils and biology) would have been the tweaking of those isolated terms. Such details have been routinely missed by secondary redactors on Dover, such as the befuddled Paul Greene (2013b) blissfully divorcing *Pandas* not only from any creationist provenance, but insisting (without any fact checking of its contents) that "those who may have read *Of Pandas and People* know this is a book of science put together by scientists with legitimate substantial credentials."

The world-as-we-intend-on-seeing-it-come-what-may ID narcissism at *Evolution News & Views* continued with the "detailed analysis" of the Jones ruling by Michael Francisco (2006a) where the activities of Buckingham, Bonsell etc. again made no appearance. Francisco (2006b) later alerted their readers to Manzari & Cooper (2006) at the *American Enterprise Institute* (evidently letting bygones be bygones for that *DI/TMLC* food fight before the trial). Claiming "Dover was never the primary target of the lawsuit, but rather served as a springboard for striking a blow nationwide against the theory of intelligent design," Joe Manzari and *Discovery Institute* attorney Seth Cooper left Buckingham and the *DASB* out of the discussion altogether as they accused the *ACLU* and *Americans United* of sinister collusion to extract the sizable lawyers' fees (a cool million dollars) that had accrued during the case.

Fuller (2008a, 35, 238n) likewise alluded to the fee issue.

The fee claim was a red herring on several levels. It had been a legal practice of long standing that the losing side of a case of this type had not only to pay up, but were liable to a sizable punitive assessment as part of a way to discourage repeat lawsuits, Forsythe (1999) noting how this stemmed from post-Civil War action against the KKK. Incidentally, Lebo (2008, 87-88) mentioned a local church in Dover that had a stained glass window donated by the KKK, who had been burning crosses there as recently as 1972. Whether the *American Enterprise Institute* planned in future to consistently object to large lawyer fees in general or suggest that questionable litigation should not be discouraged remained to be seen, but Francisco clearly didn't spot the irony in their position when he turned his guns once more on the favored target to aver that "the Darwinists are missing the forest for the trees, just so they can attempt to dismiss this embarrassing scandal!"

Parenthetically, a few months later Manzari & Luskin (2006) teamed to defend the *DI's* founder George Gilder (2006)—the article from section 1.5 above declaring Darwinian theory to be "an all-purpose obstacle to thought"—from criticism by John Derbyshire (2006) fought out at the *National Review* (an indication that even before William F. Buckley's passing the magazine was moving off its rubberstamping of ID).

DeWolf *et al.* (2006; 2007) lavished over 120 pages in a book and over 50 pages in the *Montana Law Review* not mentioning the grizzly details of the *DASB*. The 2007 iteration did feel it was "necessary to review the factual setting in which the case arose," which consisted not of a survey of the *DASB* activities, but only the origin and involvement of the *Discovery Institute* in trying to dissuade Buckingham from his plan to use their material. "Judge Jones had no trouble finding extensive and unambiguous evidence for the religious motives of the Dover Area School Board," DeWolf *et al.* (2007, 16) acknowledged in passing—instances of which they did not identify.

University of Chicago law professor Albert Alschuler (2005a-b) stepped closest to the Dover protagonists when he acknowledged in the first posting that "The court offers convincing evidence that some members [of] the Dover school board would have been delighted to promote their old time religion in the classroom. These board members apparently accepted intelligent design as a compromise, the nearest they could come to their objective within the law." He did not explore the depth of their dissembling or the relevant provenance of the *Pandas* text. Brian Leiter (2005) offered a riposte to Alschuler on the legal issues.

Casey Luskin (2009o) followed in the well-traveled *Evolution News & Views* footsteps when he failed to allude to any of the historical forensics while assailing the obituary survey of Dover by Padian & Matzke (2009) at the *Biochemical Journal*, even though Padian & Matzke had explicitly highlighted many of Buckingham's embarrassing statements. Luskin preferred to characterize the state of things by then as evolutionists "Trying to Put Intelligent Design Under a Taboo," prompting a quip from Mike Dunford (2009b): "Apparently, the entire scientific community takes its marching orders from review articles published in *Biochemical Journal*. I had no idea biochemists were so powerful. Heck, I had no idea that review articles were that powerful." Luskin (2015bd, 142-144) likewise avoided mentioning any of the board member details when he offered the Kitzmiller case in a survey of "Darwin's Poisoned Tree: Atheistic Advocacy and the Constitutionality of Teaching Evolution in Public Schools" for the Law Review of the devout Trinity University.

As for the ID witnesses at the trial, Behe and Fuller eventually weighed in. Behe (2006a) commented only on the issue of whether ID qualified as science and how his views pertained to that. The world of Buckingham and Bonsell operating in the same physical state of Pennsylvania as Behe was of no more interest to him than the paleontological record sprawling across **Deep Time**, while Lebo (1008, 198) noted that Behe had told her he would talk with her after the decision, he never got back to her after the Jones hammer fell. Dennis Jones (2013c) followed in Behe's footsteps in every respect, including not discussing the *DASB's* iniquities.

Fuller (2008a) eventually sprinkled fragments of his Dover experience into a *Dissent Over Darwin* account that was even more scattershot than his court testimony. Fuller (2008a, 2) briefly alluded to the “warmed over biblical creationism” of the “proposed ID textbook” without naming it or discussing *Pandas* any further, and never mentioned any of the Dover protagonists apart from the ACLU helping “to preserve the illusion of a scientific consensus,” Fuller (2008a, 35). Fuller (2008a, 144-150) floated away from Behe’s testimony on a cloud of general philosophy, conceding only that the biochemist’s effort at Dover had “rhetorically backfired.” Once he had attained sufficient altitude, Fuller (2008a, 158-168) refocused his telescope until Behe’s gaff about astrology qualifying as a scientific theory had blurred into a juxtaposition of 17th century scientific interest in astrology (not the modern form deteriorating over the centuries since) with a contemporary evolutionary theory Fuller insisted was “subject to vagaries of interpretation just as fundamental as those that ultimately floored astrology.” As though this were true of the content of a typical *PNAS* evolutionary article compared to the zodiacal insights of astrology (whether done by the mystic-minded Kepler or today’s newspaper parade of signs).

His fastidiousness in sweeping a mountain of technical scientific work and history under his metaphysical rug included Fuller (2008a, 21-22) dashing off a mention of the Sokal episode without letting slip his own acquiescent reaction to it at the time. Fuller (2008c, 13) subsequently flipped Sokal’s exposure of scientific illiteracy into an accusation that Sokal sought to achieve “a purging of the ranks!”

By then *Dissent Over Darwin* was being noticed. In *Science*, Michael Ruse (2008) offered “a deservedly cruel review” in the predictably partisan opinion of P. Z. Myers (2008i) that Fuller (2008c) replied to with yet another layer of opaque philosophical coating. Another interesting exchange occurred concerning Christine James (2008) on “Evolution and Conservative Christianity,” on which Fuller acted as a blind referee. Although James (2008, 198-199) had alluded to Fuller only briefly regarding his views on theology, the journal “gladly accepted” Fuller’s offer to respond.

“A blatantly obvious feature of today’s evolution-creation debate (including intelligent design) is the general tolerance—if not outright promotion—of anti-Christian bigotry,” opined Fuller (2008d, 15). But the actual behavior of the creationists at Dover did not engage his attention at the trial or in *Dissent Over Darwin*, and the “Metascientist” Fuller continued to avoid the subject here, leaving one to wonder whether Fuller could ever manage to be as disdainful of Kent Hovind (or Ken Ham, mentioned in the article Fuller was purportedly responding to) as he assuredly was of Richard Dawkins or Michael Ruse.

Fuller’s persistent tortucan rut when it came to the reality of *Kulturkampf* creationism was a last straw for *Cornell University Science & Technology Studies* professor, Michael Lynch:

Did he now know with whom he would be allied? In his opinion piece he refers to “Christians” as the hapless victims of a concerted campaign by powerful pro-evolution forces. Aside from ignoring that such “Christians” exclude many major Christian denominations, Fuller fails to mention that these “Christians” are part of a large, highly organized and active political constituency in the US that vigorously promotes a broad socially conservative agenda. In an adversary trial in a highly polarized situation, did Fuller actually believe that he could simply use the witness stand to engage in an abstract discussion of “what counts as science,” while remaining immune to the possibility that he would be aiding a political agenda that, by all indications, he does not support? *Michael Lynch (2009, 216)*.

Regarding the Jones ruling, having edited Buckingham and the *DASB* out of the Dover picture, Fuller’s *Dissent Over Darwin* inserted a replacement panorama that vaulted all the way back to that 17th century Fuller seemed more comfortable thinking about than his own 21st, leading to a flabbergasting equation:

Judge Jones' suppositions that there are multiple truths—or at least a double truth, one for religion and one for science—was precisely what impeded the advancement of science until the modern era. The issue came to a head in the 1633 Vatican trial of Galileo, the iconic moment when science asserted its superiority to religion as a form of knowledge. Galileo's crime was not that his account of the heavens varied from that of the Bible. No, it was that he thought that the variance constituted a *contradiction*. He presumed that science and religion addresses the same divinely authorities were saying things that could not both be right. Now, nearly four centuries later, a politically appointed Republican judge in Pennsylvania has handed the advantage back to Galileo's persecutors by reasserting the doctrine of double truth—except that the judge would have the doctrine administered by the scientific, as opposed to the religious, side of the divide. Fuller (2008a, 43-44).

There was a footnote at this point, offering nothing in the way of scholarship on the Galileo trial but loads on Fuller's own concerns about resolving the import of *Kitzmiller v. Dover* not as a dispute over the propriety of pseudoscientific ideologues to redirect the science education of the district, but as fallout of a man's inner spiritual convictions measured by one quote extracted from Goodstein (2005):

Jones revealed himself to be less than religiously devout in an interview published one week before his verdict. Laurie Goodstein, 'Evolution Trial in Hands of Willing Judge', *New York Times*, 18 December 2005. Goodstein writes, 'Asked if he was religious, he said he attended a Lutheran church favoured by his wife, but not every Sunday'. After reading that, I realised that the Dover school board was doomed. Fuller (2008a, 239-240n).

Moving farther out on the ID apologetic grapevine, Ray Bolin (2006; 2007) faithfully reproduced the DeWolf *et al. Discovery Institute* talking points about why ID is just dandy science and castigated Jones' contrary ruling without any allusion to the cadre of creationists at the table in Dover. Bolin (2007) stretched one glib accusation too far though when he complained, "Why does a federal judge with no training in science use the courtroom as a means of determining what is and is not science?" Might it have been partly because the ID-bedazzled legal team *demand*ed he do exactly that? Not science's fault if that didn't turn out quite the way the *TMLC* planned.

Roddy Bullock (2007), of the Ohio branch of Calvert & Harris' *Intelligent Design Network*, was more colorful when he described Judge Jones as someone who "clearly salivated at the chance to bash a few misguided school board members for their 'breathtaking inanity'," without, of course, specifying who those "few" might have been or whether Jones was all too justified in so characterizing their activities. Bullock being a lawyer, it was particularly odd for him to describe Jones' findings of fact (courts decide one or the other side have established those things all the time) as "largely plagiarized wisdom"—this from someone who then credulously linked to Jonathan Wells as his sole source for more "icons of evolution."

John Calvert (2009) entered the *Ignore the DASB* competition himself by climbing onto a precarious metaphysical pedestal to complain that "the fatal error of the decision is that the court used the incorrect definition of religion in ruling on the legality of the ID policy." For Calvert, it was a mistake for Judge Jones to define religion as just a belief in the supernatural. In his view religion should be taken as "beliefs about matters of ultimate concern." And since "non-theistic beliefs that natural or material causes explain life" are about those matters, they qualify as religions, too. By this colossally broad "functional" definition, Calvert netted "Atheism, Secular humanism, Deism, Scientology, Transcendental Meditation and Wicca."

Yet Calvert was being exclusively *narrow* in his own definition at the same time by specifying “life” alone as the issue of contention. But if appealing to material causes to explain something that a religion attributes to divine intervention counts as a “religious belief” for that reason, wouldn’t being *really* sure that the Grand Canyon came about by slow naturalistic “material causes” rather than a unique global Flood qualify just as much? Worse, Calvert posited that “the core value of science is to be non-religious.” But if supernatural causes for life are “religious,” and non-theistic materialist causes for life are *also* “religious,” then wasn’t all of “life” ruled out as a topic for science?

Calvert wasn’t about to slide down those holes (even though of his own making), not when he had a much deeper one all prepared to dive into. Calvert wanted to frame the debate this way so he could push his own *Kulturkampf* issues onto the opposing “Secular View” (whether they liked it or not)—such as “Abortion and Euthanasia OK” for them, which is a long way from the origins of life issue he seemed to start with. And all this without ever bringing up any of the *DASB* participants, putting *their* religious views (and bullying violation of at least one commandment) on display to assess whether *their* actions were worthy of defense, and whether any jurist could avoid applying the law here. Instead, Calvert had room only for the suitably redefined and baggage-laden Atheist Religion for his moralistic ID Punch and Judy show.

Moving on to the secondary redactor front, peripheral online antievolutionists like Donald Sauter (2005) ricocheted casually off popular coverage of the case, while Chuck Missler (2005h) linked to Jonathan Witt (2005d) for his coverage of the case, all paralleling the *DI* in never mentioning the likes of Buckingham. Missler (2005k) continued the trend after the verdict, channeling without any critical analysis of his own: “John West of the Discovery Institute, a proponent of intelligent design, called the decision ‘an attempt by an activist federal judge to stop the spread of a scientific idea and even to prevent criticism of Darwinian evolution through government-imposed censorship rather than open debate.’” Missler (2006) linked to *Discovery Institute* (2005h) offering a long string of popular press coverage as “Dover Intelligent Design Trial Information,” which included their own *Discovery Institute* (2005g) distancing themselves from the *TMLC* and *Discovery Institute* (2005i) that complained about Jones getting “on his soapbox to offer his own views of science, religion, and evolution” but *nothing* about the messy details of the Dover case..

A younger (but still as parasitically derivative) ID activist was Samuel Chen (2006). Finding ID via Michael Behe, Chen raised \$2000 to bring that “world class scientist” to lecture his high school in 2004, experiencing angry moments with some teachers over it that reinforced his conviction that “evolution is totalitarianism, it’s dictatorship, it’s tyranny,” as well as being at its core an atheist dogma. His 2006 paper analyzed the Dover ruling following all the same lines as Witt or West, likewise bypassing the background details (which he presumably had to have been aware of, given his repeated citation of the court pleadings that mentioned them). The closest he got to the real world of Buckingham and the charged environment in which the disclaimer was written was a lone generic allusion to “a few comments made by members of the Dover School Board” that in his view didn’t matter anyway because the disclaimer itself hadn’t explicitly endorsed any religion (a thin legalist evasion since it was that background context, and not the surface text of the disclaimer, that had tripped on the Lemon Test secular purpose prong).

Sandefur (2005a) thought “Some kind of trophy for the most absurd reaction to the *Kitzmiller* decision” ought to go to Richard Land, president of the Southern Baptist Convention’s “Ethics & Religious Liberty Commission,” who fumed that Jones’ decision was “a poster child for a half-century secularist reign of terror,” Powell (2005). But Lebo (2008, 214) found ample rivals in the world of political punditry, from Bill O’Reilly calling Jones “a fascist” to Ann Coulter, who was certain evolution “didn’t win in science, persuasion, or the evidence” and thought Judge Jones “foments a kind of civic stupidity” in our judicial system.

And then there was Phyllis Schlafly. Her *Eagle Forum* article appeared under various titles as it was

copied on the web (*Human Events* tagged it as “Judge Makes Mockery of Intelligent Design” and *Townhall Daily* hyped it to “False judge makes mockery of case for ‘intelligent design’”) but the original Phyllis Schlafly (2006) was titled “Judge’s Unintelligent Rant Against Design.” Judge Jones regarded her article as “a brutal column,” Kimmel (2006), and Jason Rosenhouse (2006a) and Ed Brayton (2006a) were among those springing to Jones’ defense (Brayton dismantling her argument paragraph by paragraph).

The big issues of Dover and whether Jones’ ruling was sound were legal and factual.

On the legal side, in a speech to the Anti-Defamation League, John Jones (2006a) rejected the “activist judge” appellation and reminded his critics that there was thirty years of establish case law that Jones was not free to ignore: “I do not have the power—and Ms. Schlafly and others fail to mention this—I did not have the power to omit utilizing those tests, nor do I have the ability to invent tests other than those recognized by existing jurisprudence against which to measure the facts of the case.” Jones went on to warn about a “creeping disrespect” for the judiciary that had resulted in marshals needing to be assigned to protect judges who had received threats (Jones included), Lebo (2006). Fresh in Jones’ mind in the Anti-Defamation League speech was “the murders of my colleague Judge Joan Lefkow’s husband and mother last February, shot by a disgruntled litigant whose case had been dismissed by the judge.”

The factual part is where methodological concerns kick in. Making the preposterous claim that “The Dover school board did not propose to say ID is scientific or valid,” Schlafly faulted Jones because “He accused parents and school board members of ‘breathhtaking inanity’ for wanting their children to learn that ‘intelligent design is an explanation of the origin of life that differs from Darwin’s view’.” Except the “breathhtaking inanity” Jones had alluded to rested on the *DASB*’s not understanding what they aimed to further and lying about how they sought to do it—but then, Schlafly never mentioned any of that part. Relying heavily on popular press coverage of the affair, had lawyer Schlafly even read Jones’ ruling? If she had, Schlafly was guilty of egregious suppression of evidence—if she hadn’t, what justification could she have for offering so tendentious an opinion? Or John West (2006d) promptly and enthusiastically recommending Schlafly’s diatribe at *Evolution News & Views*?

Compared to Schlafly, Pat Buchanan (2005) sounded downright temperate, though still disingenuously vaulting over any mention of what had gone on at Dover to instead refute “the breathhtaking inanity of the trial judge” by asserting the non-religious nature of the current design argument via Aristotle (“a man of science and reason”) who obviously came up with a Prime Mover without appealing to the Bible. That Aristotle also managed to think the Sun revolved around the Earth and heavy objects fall faster than light ones (because that “man of science and reason” was not prone to do *physical* experiments instead of *thought* ones) and so may not be so solid a precedent for science to rely on in the 21st century was missed by Buchanan in the same way he skipped past Bonsell’s witness stand dissembling on who slipped *Pandas* into the Dover library.

Recalling Marianne Jennings (2000) sidling past enforcement of the Establishment Clause at *Accuracy in Media* (discussed back in section 1.6), Chenoa McKnight (2006) furthered their disconnect by insisting that the Dover and Cobb County disclaimers couldn’t have been about religion because that wasn’t explicitly mentioned in them. Not surprisingly, McKnight did not take note of any of the details of the people involved, necessary to get any sense of the background context.

In the “politics doesn’t always rule out strange bedfellows” department, the details of the Dover case were also out of view as the political odd couple of conservative Cal Thomas and liberal debating foil Bob Beckel (equally far down on the science familiarity food chain) both accepted the scientific viability of ID for *USA TODAY*, Thomas & Beckel (2005), to the puzzlement of not a few *USA TODAY* (2005) letters as well as onlooker Richard Hoppe (2005d).

Appearing on Ted Koppel’s *Nightline* in August 2005, Thomas seemed incapable of seeing evolution as a “stand-alone issue” of science, connecting it post haste to a litany of *Kulturkampf* concerns: “school

prayer, same-sex marriage, abortion on demand, the Terri Schiavo case,” a long way indeed from scientific methodology or the details of the fossil record and biology. (The Schiavo case, a *cause célèbre* which involved how comatose or vegetative states could be detected and what role medical care or family considerations played in the disposition of patients’ rights, will be covered further in **Chapter 24**).

The tendency to divorce the *Kitzmiller* case from the human and social facts on the ground could be reinforced by another factor: the targeted concerns or specialized methodology of an academic discipline. For example, law professor Robert Vischer (2006, 86-87), unclear whether Jones’ rejection of the disclaimer was a suitable ruling or not, or philosopher Bradley Monton (2006), dissecting the Dover decision solely in terms of whether methodological naturalism should be granted free reign. Even the scrupulously balanced treatment of Italiano (2006) kept the Buckingham brigade behind the curtain (and, ironically, took no note of the anti-Jones legal opinions of John West *et al.* either). Like young Samuel Chen above, though, however peripheral the actions of Buckingham *et al.* might seem from high legal or philosophical altitude, it should have counted for something that Jones’ ruling had so extensively called attention to them as part of the required juridical task of establishing the religious intent of the Dover policy.

The philosophy forum on Dover at the Templeton Foundation’s *Science & Theology News* (a short-lived venture that went out of business Fall 2006) didn’t fare much better. The concise survey by pro-Jones Robert Pennock (2006) at least noted “ID advocates on the school board had lied to disguise the religious purpose of the ID policy,” but none of the others got that far: not the pro-ID Alvin Plantinga (2006) and quasi-pro Steve Fuller (2006), or Evan Fales (2006) worrying that Jones’ ejection of ID (which he did not deem good science) was grounded too much on a naturalism defense. Robin Collins (2006) attempted to re-categorize ID as “a metascientific hypothesis” along with “those advocating biocentric laws and higher-level patterns of teleology in evolution, such as explored by Teilhard Chardin, Rupert Sheldrake and Simon Conway Morris,” earning a tart riposte by Paul Gross (2006). All of which was a long way from Bill Buckingham strong-arming the Dover science faculty to watch *Icons of Evolution* just one more time, with conviction.

We can leave the bracing clime of Dover along with Paul Nelson, someone who has had to keep his Young Earth Creationism compartmentalized from his role as a major *Discovery Institute* tech pundit, unlike John Morris (2006a) who could freely wave his YEC complaints about “naturalistic origins” in his criticism of Dover under the *ICR’s Acts & Facts* banner. As a guest on Hank Hanegraaff (2006a) early in the year, Nelson assured the *Bible Answer Man* listeners that Jones’ Dover ruling would ultimately land on “the dustbin of history” and promised great new research and public awareness in 2006 (hindsight alert). As for the Dover disclaimer, Nelson followed the *DI* line by calling it an “unwise” policy. He did not explain in what way it was unwise, or what a wise one might look like (and whether John Morris’ *ICR* would get to bring their ball to the field)—nor did Hank think to ask about it. A measure of how pre-filtering can temper what answers you can miss on the *Bible Answer Man* when the questions don’t get asked in the first place.

1.7 Section 18: From at least one Horse’s Mouth—Winging it with Michael Behe

By having to carry the primary weight of the design case at Dover, Behe was going to face more scrutiny than he would have as one of a phalanx of ID stars. Critics were ready to take aim, of course, from the comic Argento (2005a) to Chapman (2007, 167-197) and Lebo (2008, 149-158), while Casey Luskin (2005d) was content to summarize Behe’s testimony in terms of the standard ID talking points, which managed to touch on *none* of the examples we’re about to explore.

Affable and confident to be sure, Behe’s court credibility nonetheless began to unravel at the fundamental level:

On the stand, Behe tried to establish that his book had been subjected to peer

review, one of the bedrock processes of vetting the credibility of scientific writings. He testified that his book had undergone even more thorough review than a normal journal article would have because of the controversial nature of the subject. He specifically named Dr. Michael Atchison of the University of Pennsylvania as one of the book's reviewers. But NCSE's Matzke remembered an article written by Atchison in which he stated that he had not reviewed the book at all but had only held a ten minute phone conversation with the book's editor over the general content. When the plaintiff's attorney introduced this article during cross-examination, it was clearly a blow to Behe's claim that his book had "received much more scrutiny and much more review before publication than the great majority of scientific journal articles." *Humburg & Brayton (2005b)*.

Interestingly, in his discussion of the "peer review" of ID in the Dover trial, John West (2005c) did not allude to this episode. As for Atchison, the veterinary professor at the University of Pennsylvania had signed on to the early *DI* "dissent from Darwin" list, Schaefer *et al.* (2002), but has not been a prominent player in the design campaign. Atchison (2000) has ventured a Christian perspective on genetic testing, for example, but (like so many on the *DI* dissent) he has not presented any substantive critique of Darwinism that would allow a scholarly measure to be made as to whether his divergence from Darwinism was based on a rigorous scientific evaluation of the available scientific evidence, or drawing from a much vaguer but deeper well of religious disapproval.

As Behe's Irreducible Complexity arguments are explored more fully in **Chapter 4** of Downard (2004), I will focus here on some of the broader theoretical and philosophical issues that came up, and how these related to deeper methodological concerns. Arguably the biggest one is, if one posits "design," how many *designers* might there have been? Chapman (2007, 172, 175-176, 188) tracked how Behe readily acknowledge multiple designers as a theoretical possibility for ID, but that he personally believed in only a particular unitary one (his Catholic God). And yet this was the same Behe who tried on the one hand to distance ID ("a scientific theory") from creationism ("a theological concept") while bristling at the presumed constraints of naturalistic scientific reasoning that hunted for natural causation first and foremost.

Lebo (2008, 157) was struck by another aspect of this: backed against the wall by his own vagueness, Behe had to concede ID events appeared to be currently unobservable, and hence opening up the possibility that the original designer had up and died in the meantime. Lebo ended with Rothschild asking, "Is that what you want to teach school students, Dr. Behe?"

What more overtly *theological* constraint could Behe have embraced than the presumption of a *single* (and not extinct) designer based not on any scientific observation or inference, but solely on the grounds of his religious faith? Given his own side's repeated insistence about how creationism differed from ID in exactly that way, if Behe wanted to operate as a fully consistent *ID* theorist, how could he have failed to follow up on the multiple designer concept, letting the evidence take him as far as it may, without any stifling theoretical constraint? Why saddle *his own thinking* with such an arbitrary limit *from the start*?

Unless, of course, being that consistent ID theorist would indeed open up the possibility that, if design there be, then the single designer might indeed be one of the options least likely to survive a stringent design filter—as theologically awkward a prospect as carnivorous dinosaurs living millions of years ago are to the hermeneutics of *Answers in Genesis*. Where evolutionists have at their disposal a vast body of interconnecting evidence (fossil sequences and the genetics and developmental biology of their varied living descendants) to argue that the design option makes less empirical sense than the evolutionary one, Behe's own design reasoning has shown itself more than willing to uncouple vital freight cars at every turn to keep that Design Inference engine from accidentally switching off from the

single designer siding (Behe pays no attention whatsoever to fossil data, for instance).

Without using methodological naturalism in some guise (such as inferring Cambrian animals were made of DNA just like the ones we see today), how many methodological tools remain in the ID kit to allow a design advocate to be so confident that the weird Cambrian arthropods were designed by the same esthetic hand as made the oh-so-different looking dinosaurs or the equally distinctive whales?

Let's invoke one of those design analogies of the kind that Bill Dembski might have been forced to address had he not bailed out of Dover. And which is just an extrapolation of an example Rothschild did bring up in his examination of Behe: can't we assume that a nice car in the garage means that the designer wanted to make a nice car? As opposed, say, to a clunker with bad seats and an engine that doesn't work well. Behe refused to go any farther than saying the existence of the designed car signified that the car had been designed. How illuminating—and tautological.

My version is more about identifying systematic qualities, animal and automotive.

Cars don't replicate naturally nor vary when they do (the twin requirements for a Darwinian system) and therefore are exclusively objects of design, in this case entirely human. But not merely human: they're not all by the same designer. Different people working in different companies have come up with a variety of similarities and differences, all characteristic of a designer system where ideas may be copied from one product to another (like everybody eventually using steering wheels instead of tillers or featuring variable windshield wipers on their models), but still reflect the individual stylistic predilections of the varied designers.

Something else distinguishes natural undesigned systems from unnatural intelligently designed ones. Unlike a natural system where no matter how useful the biological equivalent of a variable windshield wiper may be, if you aren't descended from a form that pioneered it, you're out of luck. In biology some components can be nicked *en bloc* through horizontal gene transfer (HGT), and similar functionality can arise independently by natural convergence (such as the hydrodynamic shape of ichthyosaurs and dolphins determined by the honed utility of a smooth shape for predatory critters that have to flow through a watery environment at speed to get their dinner). But when designers copy a new feature, like General Motors and Chrysler making their product line look more like the striking Lincoln *Zephyr* in the late 1930s, its copying above the structural dynamic level, a form of grand imitation that renders systematic taxonomy regarding what was borrowed (related) from what far more difficult than taxonomizing naturally evolving living systems. We'll be seeing examples of this in the discussions to come over how plausible a design argument is for living organisms.

If you only looked at the overall disparity of living forms and didn't include all the available data regarding what goes on underneath the surface, a designer argument for them would face an obvious stylistic issue. Were Cambrian arthropods and Mesozoic dinosaurs and Cenozoic whales any less *disparate* than the indisputably human designs of the Big Three American car companies for model year 1959: the hyper-finned kitsch of Harley Earl's *Cadillac* at General Motors, the "Forward Look" modernism of Virgil Exner's Chrysler *Imperial* (with functionless independently designed fins just as big as the Caddy), and the equally controversial angle-headlamp funk of John Najjar's humongous *Lincoln Continental* at Ford? True, they all have engines, transmissions, wheels, doors and seats, but the internal details of them differ in ways that would seem (at least using the naïve objections to homologies that design advocates routinely invoke to chop the Tree of Life into so much creationist baramin kindling) to support a multiple designer model as the *most easily defended* default.

And something else about that 1959 Lincoln. The design was a slightly tweaked installment of the 1958 model, selling poorly as the car market slid into a late Eisenhower term recession. Its marketing failure not only cost Najjar his spot as Lincoln's design lead but almost sank the division until Ellwood Engel jumpstarted things with the sleek modernity of the smaller 1961 model (ironically, an afterthought loser in the competition to work out what the 1961 *Thunderbird* would look like). Engel would later redesign the 1964 *Imperial* to resemble his original concept when he moved over to Chrysler

(aficionados of the short-lived TV series in the 1960s will know it in its armored guise as the *Green Hornet's* car).

This digression on American luxury car design reminds us that designed systems have *histories*, they take place in time and space, and the fact that what we might dub *Behe's Black Box* is so unimaginatively small on this point helps explain why design theory has had such a limited utility. To invoke design inevitably opens up the Pandora's Box of the *quality* and *purpose* of the "design" as well as its *history*. To pretend as if those options are not an inevitable consequence of design reasoning, or that somehow you can avoid them by not thinking about them—as Behe has done in his work and at Dover—is a fundamental conceptual defect of the modern design movement.

On what design grounds could Behe preclude that dinosaurs went "extinct" only in the same way that the Chrysler *Imperial* faded out: because the manufacturer eventually stopped making them? Was the dinosaur designer—or *designers* (different ones for the Saurischian and Ornithischian divisions, mayhaps?)—only granted a limited run, and the Deccan Traps and Chicxulub impact were but the cancellation reminder for a team otherwise inattentive to more mundane reminders? Time to retool the factory floor for *mammals*, fellows. Out with the old designers and in with the new!

Now this issue of multiple versus single designers was not a topic that Behe was disposed to explore on his own. But he showed much the same dampened curiosity in the areas he did bring up.

The Expert Testimony deposition of Behe (2005b) included a *mélange* of exhibits gleaned from popular and scientific literature that may have illustrated more about his analytical method than he may have intended. Not unexpectedly, he included Behe (2000a; 2001c; 2004) to reiterate his views and respond to some criticism, which of course depended on the criticisms actually being invalid. But Behe included *none* of those criticisms for "critical analysis" comparison, though some were inadvertently covered in James Glanz (2001a) reporting on the ID controversy for *The New York Times* that Behe included in the Dover exhibits—possibly because his picture was so prominently on the cover?

On the methodological front, Behe sought to dissolve the issue of evolution (or ID) qualifying as a solid "theory" by trawling through *PubMed* for ten science papers in which "theory" is used more generally, Behe (2005b). Behe's alternately restrictive and elastic concepts of *theory* at Dover caught the attention of Chapman (2007, 172-173, 180-181) and Lebo (2008, 151-155) where Behe had to let *astrology* slip through the slack in a way he wasn't about to grant natural selection.

As for ID—the cherished baby who needed not to be thrown out as the water began to drain from the tub—having reduced the topic to only "Intelligent design theory focuses exclusively on the proposed mechanisms of how complex biological structures arose," Behe would say nothing about what those Intelligent Design *mechanisms* might be. Indeed, Behe agreed that Intelligent Design did not "identify who the designer is," or "how the design occurred" or "when the design occurred." A Triple Crown of racecourses minus any designer horses.

What was left was the old "God of the Gaps" argument (slipping the miracle in wherever things aren't accounted for) with the cloaking device on: Behe's resistance to any of the mechanisms of change *evolutionists* had to offer. Which landed at last at the Himalayan double standard Behe straddled when it came to dealing with what would constitute sufficient evidence that one of his irreducibly complex candidates would have originated by natural means after all:

Not only would I need a step-by-step, mutation-by-mutation analysis, I would also want to see relevant information such as what is the population size of the organism in which these mutations are occurring, what is the selective value of the mutation, are there any detrimental effects of the mutation, and many other such questions.

Talk.Origins Archive (2006b).

Behe didn't undertake any such investigation himself, of course, or even recommend other ID

activists take a whack at it, signifying the stultifying impact of ID assumptions operating on a one-way methodological street. All the hard work has to be done by *evolutionists*, not design advocates. And until they have nailed down *everything* to Behe's satisfaction, no need to pay attention to any of that other work, no matter how much of it there may be, or how well it may fill in vital links in the puzzle chain. It's all or nothing for Behe.

The deadening character of this attitude for workaday incremental scientific progress was not been lost on critics of ID like John Lynch (2009a). But when Boudry *et al.* (2010) objected to this "absurd demand" repeated by Behe (2010c). Luskin (2011n) opined, "Apparently for these critics, Behe is 'absurd' for actually expecting neo-Darwinian evolution to present a convincing case."

Luskin seems not to be able even to conceptualize that there is a double-standard issue here (a tortucan blind spot of long standing in antievolutionary apologetics, as we'll be seeing more of in due course), where Behe is requiring a level of evidence that he is not willing to apply to his own claims. But the problem goes even deeper, to the technical forensics of whether any scientific discipline could pass muster if you never allow the foundational work to count, especially in areas where the scale or complexity of the phenomena may make it difficult to replicate in a tidy laboratory setting.

Behe's statement put him on exactly the same methodological footing as creationists like Robert Gentry, demanding uniformitarian geology synthesize a block of granite in the lab complete with polonium halos before he would be impressed, discussed in **Chapter 3** of Downard (2004). In this game of setting up arbitrarily high hurdles for their opponents, in lieu of looking at the broad body of relevant information *available in the meantime*, Behe and Intelligent Design are by no means the only players waiting in line to kick over the scientific lemonade stand.

Most interesting from a methodological aspect was Behe's venture into the finer points of bacterial antibiotic resistance represented by Barry Hall (2004a). Behe was so bowled over by the Hall paper that he included a full reprint of it for the Dover court, where one could see that he had drawn a big circle around the "Not" in the title ("In Vitro Evolution Predicts that the IMP-1 Metallo- β -Lactamase Does Not Have the Potential To Evolve Increased Activity against Imipenem") to emphasize what he took as the "limit of Darwinian evolution." Arbitrarily deck-stacking his point further by asserting that evolutionists think "Darwinian processes can do everything," Behe (2005b) summarized Hall's findings thus:

This is exemplified in some recent papers from the laboratory of Professor Barry G. Hall at the University of Rochester. Although he is not an advocate of intelligent design, Professor Hall nonetheless does not automatically assume Darwinian processes can do everything. For example, he writes in a paper in the journal *Antimicrobial Agents and Chemotherapy*: "Instead of assuming that metallo- β -lactamases will evolve rapidly, it would be highly desirable to accurately predict their evolution in response to carbapenem selection." Using a method he developed, he predicts that bacteria will be unable to develop resistance to an antibiotic called imipenem. He writes in the abstract of his paper: "The results predict, with >99.9% confidence, that even under intense selection the IMP-1 β -lactamase will not evolve to confer increased resistance to imipenem."

Behe (2005c) thought so much of this finding that he reiterated it in his rebuttal to Ken Miller, adding with **bold** conviction that "Barry Hall is looking to find the limits to evolution in order to help develop better antibiotics. I think this point deserves greatest emphasis. **It is critical to the development of better antibiotics, pesticides and drugs to determine the limits of Darwinian evolution.**" And Behe (2007b, 236-237) rolled it out once again, followed by Jonathan Sarfati (2008e) over at *Answers in Genesis*, freely drawing on *The Edge of Evolution* as authority to use Hall's paper as a club to pound the *New Scientist's* series by Michael LePage (2008a-y) on antievolutionary myths and

misconceptions about evolution—an ironic maneuver on Sarfati’s part, since his secondary reliance on Behe had just added a new example of exactly the sort of defective analysis LePage was warning about, such as LePage (2008g) on “Evolution is limitlessly creative.”

So what had Hall actually done, and how was all this playing out in that world of disease abatement that Behe was so anxious to liberate from the deadening shackles of Darwinian presumption? Hall had indeed pioneered useful techniques for evaluating the potential evolution of bacterial virulence in specific cases, summarized by Hall (2004b), which should have made Behe especially mindful of all the content of the paper, and not just the bits that served his apologetic purposes. For example, this paragraph earlier in Hall’s paper:

IMP-6, which differs from IMP-1 by a single amino acid substitution, increases the MIC of meropenem 128-fold but does not increase the resistance to imipenem. If the rapid evolution of the class A extended-spectrum β -lactamases is typical, then we should indeed be concerned about the evolution of metallo- β -lactamases in response to the clinical use of imipenem and other carbapenems. *Hall (2004a, 1032).*

As the mutant cousin that generates the IMP-6 enzyme appeared not to be a problem (at the moment), Hall’s experimental modeling for the more commonly generated IMP-1 suggested there wouldn’t be an impending threat from that particular direction. But the existence of an “IMP-6” ought to have clued Behe in to the existence of more one player in the bacterial game. This turns out to be rather a consistent blind spot for Behe, as seen in **Chapter 4** of Downard (2004) regarding population biology issues and matters like the evolution of the vertebrate immunity system. Hall (2004a, 1033) explicitly concluded with a warning: “In order to understand the risks posed by metallo- β -lactamases, it will be necessary to conduct similar studies on representative members of each of the three metallo- β -lactamase subfamilies and to include all clinically relevant carbapenems in those studies.”

If the caricature that “Darwinian processes can do everything” is flawed, what of Behe’s implicit presumption at Dover (and since) that conditions applying to the genome of *one* of a broad group of related bacteria could be extrapolated into a fixed “limit of Darwinian evolution” precluding mutations in any of the many variants Hall had *not* studied concerning their generation of the metallo- β -lactamase (MBL) enzymes that could pose a threat to imipenem use?

It is indicative of Behe’s approach to IMP-1 (and by analogy to a lot of the argument that goes on in the ID and creationist camps on all manner of subjects) that at no time did Behe stop to explain what was going on: why mechanistically IMP-1 would be unlikely to mutate in a way to threaten the utility of imipenem, or what were the dynamics of the system that weighed even slightly in favor of a design option. Nor did Behe undertake (in his 2007 *Edge of Evolution* or since) any follow-up to determine what might have happened in the years since concerning that work. All he did was wave the isolated finding like a talisman to ward off the Darwinian boogiemans. Following that unexplored thread suggests not only why Behe might not be the best fellow to rely on for recommendations on antibiotic policy, but provides an exemplar to remind us later on as we investigate other cases about the pitfalls of a superficial antievolutionary “scholarship” that seems utterly devoid of genuine curiosity.

IMP-1 and IMP-6 were first isolated in Japan (in 1991 and 1996 respectively), but since discovered elsewhere and encountered in various bacterial species. The IMP family poses a threat because of the way the zinc ions in its MBLs act as a catalytic cofactor to bind to the antibiotics and so disrupt their function. The reason for special concern, though, is that the genes for them have come to be attached to very active plasmids via *integrons* (genetic modules able to capture gene cassettes in their recombination process) as well as in “copy me” transposons, Yano *et al.* (2001) and Toleman *et al.* (2003), offering the potential for fresh mutational mixes that might not be so congenial to imipenem, such as IMP-4 showing up in several different new bacterial species in Australia and the United States,

Peleg *et al.* (2004) and Limbago *et al.* (2011).

1.7 Section 19: Venturing Further into the Bacterial Maze—Creationist history lessons on religion & politics

Parenthetically, the metallo- β -lactamase issue briefly elbows us into the Biblical antievolution scene via Toleman *et al.* (2003), as microbiologist Mark Toleman happens to be a British creationist. His involvement didn't preclude their collective employment of phylogenetic analysis to generate a cladogram of IMP relationships (suggesting how creationists can operate within an overall framework of evolutionary presumptions, at least while they don't think too much about the implications of their own collaborative work). Venturing into the garden maze of Toleman's non-evolutionary view of things affords an opportunity to explore those pesky bacteria from another direction, to see how they fit into the larger frame of antievolutionary expectations.

Apart from signing the *Discovery Institute* petition, his only declaration on the antievolution theme was Toleman (2003) framing the 18th century dispute over "spontaneous generation" *biogenesis* as one of sloppy pseudoscientific charlatans egged on by "godless peer pressure" until the superior skills of properly devout scientists confirmed the truth that only God could do Life. There were quite a few *dramatis personae* involved, but the primary figures were John Needham (1713-1781) on the spontaneous generation side and his resolute opponent Lazzaro Spallanzani (1729-1799).

Toleman had drawn on only one main resource for this affair, the 1926 classic *Microbe Hunters* by microbiologist Paul de Kruif (1890-1971), which while an invigorating read (awash with imagined conversations and vivid scenic detail) offered a precariously dated popular science footing for what Toleman thought to do with the *biogenesis* story: kicking away *abiogenesis* experiments of the 21st century by proxy, work involving amino acids and lipid research not only unfamiliar to Spallanzani in the 18th century but to de Kruif in the Roaring Twenties.

The historical scholarship of the Needham-Spallanzani dispute had also progressed since 1926 (the year after the Scopes Trial, remember), such as Hellman (1998, 63-79) and Capana (1999) or the survey by Wilkins (2004) for *Talk.Origins*, but superficial documentation wasn't Toleman's only problem. Because his 21st century creationist world is a combat zone between godly design and materialist atheism, Toleman had to do some careful parsing of the religious convictions of the spontaneous generation protagonists, characterizing Needham as a "Catholic priest who liked to dabble in pseudoscience" while identifying Spallanzani as also "a Catholic priest but one that really believed in a God."

In this he had to climb over his own source, where the chapter on Spallanzani in de Kruif (1926, 23-53) was already prone to breezy characterizations like "the Italian was a nasty fellow who liked to slaughter ideas of any kind that were contrary to his," but de Kruif was particularly serpentine regarding Spallanzani's faith:

Despising secretly all authority, he got himself snugly into the good graces of powerful authorities, so that he might work undisturbed. Ordained a priest, supposed to be a blind follower of the faith, he fell savagely to questioning everything, to take nothing for granted—excepting the existence of God, of some sort of supreme being. At least if he questioned this he kept it—rogue that he was—strictly to himself.

Even stipulating that Spallanzani was ultimately devout, though, what of Needham? As de Kruif dismissed Needham as "a devout Catholic who liked to think he could do experiments," nothing in *Microbe Hunters* suggested the priest's devotion was any less deep or thoughtful than his Italian critic. So how exactly Toleman was divining this distinction was anybody's guess. Needham certainly warranted points for pluck: managing to garner some renown as a Catholic in Protestant Georgian

Britain was no small accomplishment (he was the first Catholic elected to the Royal Society, though his conservative defense of the divine right of kings may have helped). De Kruif was snide on this matter too: “Worst of all, the Royal Society tumbled over itself to get ahead of the men in the street, and elected Needham a Fellow, and the Academy of Sciences of Paris made him an Associate.”

That no one seems to have accused Needham of apostasy at the time is relevant, since the materialist implications of a successful demonstration of biogenesis were obviously not lost on his Enlightenment contemporaries, particularly deist (but no atheist) Voltaire, the *nom de plume* of François-Marie Arouet (1694-1776), who lit into Needham and spontaneous generation with a vengeance. On this point, Toleman may also have accepted too readily de Kruif’s blanket attribution of overconfident Jazz Era cynicism (he and H. L. Mencken grew into fast friends) to the 18th century:

The world would have liked to believe Needham, for the people of the eighteenth century were cynical and gay, everywhere men were laughing at religion and denying any supreme power in nature, and they delighted in the notion that life could arise haphazardly.

One might hardly imagine that the French Revolution was about to happen, or that some of those “cynical and gay” folk might burn your house down (and physically *tar and feather* you besides, had they managed to catch you) for denying the Trinity, as would happen to Unitarian chemist Joseph Priestley (1733-1804), prompting his precipitous departure to America with his family, Jackson (2005, 254-260).

Toleman concluded his spontaneous generation piece with a gratuitous stab at Erasmus Darwin as someone who “simply chose deception rather than truth and ignored Spallanzani’s experiments as though they were never performed.” But that was filtering grandpapa Darwin’s occasional poetic ventures on this topic through hindsight (just as Toleman imposed his own religion/materialism sensibilities rather than granting the players the luxury of their own independent sincerity). Although Spallanzani’s careful work showing how properly sealed and sufficiently heated flasks argued against biogenesis for the curious “animalcules” visible to their microscopes (let alone flies and bigger pests), investigators looking into the origin of diseases in the 18th century were expanding the range of culprits so quickly that spontaneous generation could not be ruled out as a general principle until well into the next century, noted for example by Egerton (2008). It was also a time of adventurous but often credulous discovery, such as the mania for electric fluids that swept through European science and attracted the prolifically curious Erasmus Darwin as well, Pancaldi (2009). Making sense of all these new findings was no easy task, especially when the story had been decanted solely from *Microbe Hunters*.

The biogenesis question was knee deep in something Hellman (1998, 63-79), Capanna (1999) and Wilkins (2004) all identified regarding 18th century thinking, but not touched on in *Microbe Hunters*. While we now know how sperm and egg interact in vertebrates to begin embryonic development, much of that was still a mystery in the 18th century. The hypothesized mammalian egg wouldn’t even be observed until 1827 by Karl Ernst von Baer (1792-1876), and the chromosomal mixing that determines sex wasn’t worked out until the 20th century, with the pioneering discoveries of Edmund Wilson (1856-1939) the underappreciated Nettie Stevens (1861-1912), Brush (1978).

Operating in that informational twilight were two competing (and ultimately equally *wrong*) explanations carried over from the 17th century: the *epigenesists* who thought embryos coalesced from formless substances (rather as Aristotle had imagined, maybe even from garden variety *mud*) after some prodding by the sperm—and the rival *preformationists* who envisaged embryos as miniature adults (a *homunculus*) residing in the egg until it began to enlarge after fertilization. The popularity of the two camps ebbed and flowed as a duel of improving microscopes left a trail of tempered reputations and bruised egos.

While the epigenesists grasped at the mirage of spontaneous generation, preformationists tilted

with some problematic windmills of their own. Spallanzani, for example, thought hybridization could occur on a ridiculous scale (a mare with a bull, or a rabbit with a hen), and regarding sexual insemination, denied sperm any role in fertilization at all (deeming it but a wiggly parasite accompanying the vital seminal fluid)—though to be fair, sperm wouldn't be actually observed microscopically penetrating an egg until the 1870s. That chronology would have fallout too, as the Catholic Church would come to its doctrinal convictions about life beginning “at conception” in the context of that coalescing flood of microscopic discovery.

If preformationists were thought to have won the biogenesis debate after Spallanzani's experiments, it was at a cost: retaining arbitrary notions about embryological development that acted more as obstacle than inspiration until cell theory eventually supplanted preformationism altogether. Looking back on the controversy long after the dust had settled, molecular biologist Paul Zumbo (2012) wryly summed up how the ultimate positional genetic and epigenetic substructure of embryonic development lay more in the middle: “the epigenesis of something preformed.”

By the 19th century the debate had moved on to different issues anyway: the causes of disease (an obvious health safety issue) and what caused fermentation (of considerable practical economic interest to winemakers and brewers). A strictly chemical (atheist/materialist?) model of fermentation was first proposed by scientific heavyweight Antoine Lavoisier (1743-1794), while the rival biological idea involving yeast was offered by a lesser light in French science, engineer Charles Cagniard-Latour (1777-1859). Although Cagniard-Latour helped identify yeast as living organisms in the late 1830s, even this observation was not immediately accepted in science, reminding us again of the dangers of hindsight when playing the “Who's On First?” discovery game (Science Edition).

As for the last gasp of spontaneous generation advocacy, vitalist-minded theists and materialists alike (Spallanzani and Erasmus Darwin notwithstanding) were able to entertain the idea even as *Origin of Species* rumblings began to be heard from across the English Channel (Pasteur's final assault on spontaneous generation began in the early 1860s). This made the materialist implications of biogenesis claims impossible to ignore, and made the issue an undeniable philosophical hot potato. Continuing to complicate the problem, though, was the fact that 19th century biologists were still only beginning to stake out the environmental range of living things, such as heat resistant organisms that could survive the very sterilization regimens being so confidently employed by both sides, Strick (1997).

Gerald Geison (1943-2001) added another wrinkle to the modern evaluation of Pasteur's role when he examined the scientist's original experimental notebooks and found even that pioneering work was not immune to some confirmation bias, as Pasteur had rejected 90% of his own results as due to contamination or error whenever they happened to conflict with his theoretical expectations, Geison (1995). In a creationist paean for *AiG* decrying the “politically correct revisionist historians” besmirching the Christian pedigree of Pasteur's contribution to science, Gillen & Sherwin (2008, 46-47) veered disingenuously close to this cliff by cribbing a single quotation from *The Private Science of Louis Pasteur*:

Protestant François Guizot, a historian and politician, came to the defense of the Catholic Church against the materialist attack, which he saw as an assault upon the Christian faith. In an 1862 book, he insisted that “under the blows that [the materialists] bring against Christian dogma, the entire religious edifice collapses and the entire social edifice shakes, the Empire, the essence of religion itself, vanishes” (Geison 1995, p. 124)

And yet Gillen & Sherwin somehow managed to avoid alluding to any of the book's main content on the method and legacy of Pasteur (the topic of their *Answers Research Journal* paper), a display of selective quotation worthy of the master, Duane Gish.

Since they brought the fellow up, though, François Guizot (1787-1874) was a constitutional

monarchist whose “asleep at the switch” administration for the clueless and undemocratic King Louis Philippe (1773-1850) had the perky bootstrap economic motto of *Enrichissez-vous par le travail et par l'épargne et ainsi vous serez électeur!* (“Enrich yourself through work and savings and you will be electors!”). That proved more sizzle than steak, as inequality and bad harvests all across Europe boiled over into the Revolution of 1848.

As it happened, Guizot had been trembling over the collapse of social order for some time, fueled by many of the same concerns that unsettle culture warriors today. My old college textbook on the period, Ferguson & Bruun (1969, 652), quoted poet Heinrich Heine (1797-1856) writing in 1842: the Parisian “bourgeoisie itself is obsessed by a nightmare apprehension of disaster. It is not fear of a republic but an instinctive dread of communism, of those sinister fellows who would swarm like rats from the ruins of the present regime.”

It is against that backdrop that Guizot advised fractious French Catholics and Protestants in 1838 (during which time that certain British fellow had lately returned from his long sea voyage) of their common threat: “Impiety, immorality, these are the enemy which they both have to fight. Reviving religious life, this is the work to which they must devote themselves,” *Guizot* (2014). Apparently that labor did not require addressing festering social ills by expanding the franchise in Louis Philippe’s corrupt domain (less than 1% of France’s 35 million people could vote) or forgoing police repression to the point where revolutions didn’t happen.

As the revolutionary cauldron boiled, worried middle class Frenchman took refuge in an increasingly defensive Catholic Church, and religion and politics dominated reaction to evolution there after the *Origin of Species* was translated into French in 1862, Farley (1986, 39-42)—the same year Victor Hugo (1802-1885) came out with his stinging moral commentary *Les Misérables*, by the way (giving us another window into the hot button issues of period). By that time Napoleon III (1808-1873) was on the scene, and that posturing spectacle was the “Empire” whose dissolution Guizot was so concerned about. Which does make one wonder why Gillen & Sherwin thought to bring up Guizot and his age at all. Were there not enough *Kulturkampf* battles for them to fight in the 21st century, that they felt the need to exhume a few more in musty pantaloons from the Second Empire?

Gillen & Sherwin remind us that, like Einstein noted earlier, Pasteur is another of those Great Scientists who offer a most tempting apologetic football for both sides in the creation/evolution debate, anxious to claim as their own (provided you don’t pay too much attention to whatever else was going on at the time or what their views actually were). Henry Morris (1982; 1985, 14) summarily listed Pasteur as a creationist, and the *Creation Science Hall of Fame* (2013) excerpted another Morris book for the bald claim that Pasteur “was the object of intense opposition by almost the entire biological establishment, because he opposed spontaneous generation and Darwinism.” Dao (2008d) at the *ICR* and *Conservapedia* (2013g) were more circumspect, alluding to his faith but offering nothing about his stance on evolution.

Intelligent Design can’t resist sidling into Pasteur’s shadow, either, such as Michael Flannery name-dropping Pasteur as an ally in a 2015 video (noted back in **TIP 1.5**), linked by *Evolution News & Views* (2015ab).

Strolling farthest out on the gangplank, *CreationWiki* (2013m) relied on Coppedge (2000) secondarily to deny the various biographical evidence that suggested Pasteur harbored no serious technical objections to evolution. But jumping fully off the gangplank were Gillen & Sherwin (2008, 47) when they assured their *AiG* readers that “Despite the growing trend elsewhere in Europe, Pasteur came to oppose evolution,” and promptly tried to import the scientist by packing him in someone else’s valise, that of a certain “Mrs. Flourens” extracted secondarily from a historical analysis by John Farley (1974):

Mrs. Flourens, who succeeded George Cuvier as secretary for the French Academy of Sciences,

opposed Darwinism. The French Academy of Sciences published Flourens' *Examining the Book Written by Mr. Darwin Concerning the Origin of Species (Examen du livre de M. Darwin sur l'origine des especes)* in 1864. The theme of the book was that Darwinian evolution depended on the occurrence of spontaneous generation and therefore could not be considered because spontaneous generation was false (Farley 1974).

Only the physiologist Marie Jean Pierre Flourens (1794-1867) was neither a *Mrs.* despite his first name (perhaps somehow misconstrued by Gillen & Sherwin from *monsieur* or that secretarial occupation?) nor Pasteur. Why not then just quote *Pasteur*? And, clearly lacking the ability to do that, why bring up Flourens as drag camouflage? That the fellow bristled at Darwin was plain enough, but how could the speciation activity Darwin was proposing be depending on *spontaneous generation* when that subject was not germane to either the natural variation being observed or the efficacy of the natural selection mechanism proposed by Darwin (and independently by Wallace) to preserve and channel it?

For such reasons Flourens passed like a blip on the scene. In a letter to Wallace, Darwin (1864) dryly alluded to Flourens' "little dull book" and Wallace (1872) easily flicked the late scientist aside when his work was invoked by another critic of evolution. Nor has subsequent history burnished Flourens' scientific reputation. Although he ventured into brain research and had his supporters in French science, his conceptual refusal to entertain the possibility of cortical specialization put him on the sidelines of the field, aggravated by lab practices more Needham than Spallanzani: "Flourens's experimental technique was not accurate, and his behavioural studies were both crude and rudimentary," Pearce (2009, 312).

1.7 Section 20: Origins or Bust—Pasteur, evolution and religion in the French scientific tradition

As for where Pasteur stood on the Darwin or creation, one quotation that would bear on this point concerned an allusion tossed off in Pasteur (1881) to potentially virulent microbes having evolved over millions of years, which Wilkins (2004) and Cross (2007) both deployed to suggest that Pasteur was not an antievolutionist. But Gillen & Sherwin (2008, 49) correctly pointed out that the version of the Pasteur statement Cross had used was not that of the original paper, though even Gillen & Sherwin relied on a 19th century American translation as their source. But the actual French *Comptes Rendus* paper did confirm this: somewhere along the scholarly line (Wilkins had quoted from a 1965 Pasteur biography) a parenthetical clarifying insertion had appeared that millions of years were involved in evolution.

Pasteur's 1864 Sorbonne address on spontaneous generation framed the matter more broadly: "Great problems are in question today, keeping every thinking man in suspense: the unity or multiplicity of human races, the creation of man 1,000 years or 1,000 centuries ago; the fixity of species, or the slow and progressive transformation of one species into another," Pallen (2009, 78). Since Pasteur would have known human beings had been around for more than a millennium (1000 years earlier would have been at the time of Charlemagne, 800 years after the birth of Christ), his use of *mille* likely owed more to rhetoric than temporal reflection, nor did Pasteur discuss that "slow and progressive transformation" issue any further.

Gillen & Sherwin (2008, 51) were not so equivocal:

Although he was not a young-earth creationist (YEC or biblical creationist) in the modern sense (he lived in a different time, continent, and culture), Pasteur was clearly skeptical of Darwin's idea of evolution. Little is said about his beliefs on the age of the earth. But from a few anecdotal remarks, there is reason to believe that he believed in a recent creation, not one evolving over millions of years.

None of those “anecdotal remarks” they bothered to share with their readers, apart from Pasteur’s frequent attestations to being a man of faith. But before Gillen & Sherwin get to pop their champagne cork and toast the antievolutionist Pasteur, they should have paused to wonder why, in all of the years of painstaking reportage Pasteur and his contemporaries devoted to his activities, not a single sentence could be adduced where Pasteur even mentioned Darwin, let alone criticized him. The case is like the old Sherlock Holmes story, *Silver Blaze*:

“Is there any point to which you would wish to draw my attention?”

“To the curious incident of the dog in the night-time.”

“The dog did nothing in the night-time.”

“That was the curious incident,” remarked Sherlock Holmes.

Apparently Pasteur was so “clearly skeptical of Darwin’s idea of evolution” that no one at the time or since could dredge up anything from Pasteur himself expressing that opinion! And then there’s the *Silver Blaze* factor: not the slightest whiff of concern crossed the vigilant noses of Darwin, Huxley or Wallace over many years, who we know (as in the Flourens case above) were primed to notice and respond to every challenger. And yet Darwin and company accepted the evidence of Pasteur on spontaneous generation without much fuss, and decades later, MIT bacteriologist William Sedgwick (1855-1921) readily connected the two scientists’ accomplishments without perceiving any underlying tension, Sedgwick (1923).

Darwin’s attitude on the subject is illustrated by two letters from the period quoted by Pallen (2009, 78). Darwin enthused in 1863 how he “was struck with infinite admiration” of Pasteur’s work. As for the failure of spontaneous generation biogenesis of modern organisms, that didn’t rule out the possibility of a far more fundamental *abiogenesis* (another Huxley neologism coined during this period) involving potentially very different prebiotic components and theoretical conditions. In an 1871 letter to Hooker, Darwin tentatively pondered the matter in a way ultimately remarkably prescient in light of prebiotic research conducted over a century later:

It is often said that all the conditions for the first production of a living organism are now present, which could ever have been present. But if (and oh! what a big if!) we could conceive in some warm little pond, with all sorts of ammonia and phosphoric salts, light, heat, electricity, etc., present, that a proteine compound was chemically formed ready to undergo still more complex changes, at the present day such matter would be instantly devoured or absorbed, which would not have been the case before living creatures were formed.

That some antievolutionists then (particularly in France) tried to conflate the two issues of *biogenesis* and *abiogenesis* (and modern ones like Toleman, Gillen & Sherwin still do) just reinforces how apologetics can trump fine distinctions.

It may be most revealing that Pasteur was as exasperatingly imprecise on chronology as he was in his brief allusion to centuries past in 881 and the thousand years/thousand centuries remark at the Sorbonne in 1864—this from a man known for *not* being imprecise. If the cosmos really were Ussher-scaled, there would have been only sixty centuries since Creation, even as 19th century geologists were adding orders of magnitude to that. But Pasteur simply didn’t seem to think much about chronology. Then again, he didn’t need to. His work dealt exclusively with living microbes, and no fossil record or DNA sequences existed to demand questions about their deeper relationship. Here Pasteur and Michael Behe may well have shared a genuine temperamental concordance—enjoy it while you can.

Meanwhile, while Darwin studied some microbes, viewing them as just as subject to natural

selection as any other life, and actively corresponding with botanist Ferdinand Cohn (1828-1898) who pioneered bacterial taxonomy (recognizing how some forms were related to another), the *Origin of Species* had not dwelt on them and overall microbiology and evolutionary thinking operated at a distance until after the 1940s, Drews (2000), O'Malley (2009), Pallen (2009) and Moxon (2011). Add to that (as noted back in section 1.5) how the French practical scientific tradition shied away from larger theoretical contexts anyway, deriding them as speculative distraction, so why bother venturing into areas beyond where his work applied?

But there was another factor, one more conceptual than factual. The inference that Pasteur must have been an antievolutionist *because* of the spontaneous generation disproof follows what may be called the **Origins or Bust** logic that modern antievolutionists also take as a given: if life did not (and cannot) originate naturally, then it did not (and cannot) have *evolved*. QED, case closed. Strictly atheistic evolutionists also need a purely natural origin of life just as stringently as creationists want there not to be one, of course, and early German evolutionists tramped along that mechanistic philosophy path, Farley (1986, 41-42). It was certainly a creationist trope in play by the time Byron Nelson (1893-1972) nixed a mistranslation of Darwin on life's origin (courtesy of Ernst Haeckel, of all people) in 1927, as recounted by Glenn Branch (2015d). Nelson's role in the popularization of Price's Young Earth geology (and controversies over how humans fitted into the picture) was covered by Numbers (1992, 105-115), with a legacy carrying on, after a fashion, in his grandson, current *Discovery Institute* IDer (and Young Earth Creationist still) Paul Nelson.

Over in Britain, though, Darwin, Wallace and Huxley refused to play the game from that direction. For them, the evolution of life could be deduced by a variety of interlocking hard facts, independent of whether its initial origin was by natural or supernatural means—and none of that evidence for branching common descent would go away just because life did or did not arise in a particular way. By moving the origins issue to an unnecessary speculative siding, the British Darwinian evolution train never arrived at the theistic station—in contrast to the politicized French edition of the **Origins or Bust** game, where the theistic platform represented both the arrival and departure points.

Pasteur recognized the downside implications of this focus though, warning in the 1864 Sorbonne address quoted by Farley (1986, 39) what awaited should abiotic life experiments succeed. Not only would the prospect of the evolution of all life follow almost as a conceptual afterthought, but the need for that First Cause would be rendered at best *optional*: “To what good then would be the idea of a Creator God.”

Which is evidence that Pasteur may have thought through his circumspection a bit more deeply than had Michael Behe. Not that Behe could resist playing the **Origins or Bust** game briefly at Dover, though with a tighter purpose. One of Behe's court exhibits was a reprint of Crick & Orgel (1973) on their “directed panspermia” notion that life here may have been part of a grand seeding program of highly advanced alien, and Muise played it up in the court proceedings, Chapman (2007, 49-50).

Presupposing as it did that life couldn't have originated on the early Earth on its own, and so must have come from space, Crick & Orgel's idea begged the “chicken or egg” question big time, of course, because it wouldn't explain who seeded the highly advanced aliens in order for them to come along later to do their own seeding here. Behe and Muise's use of it at Dover thus hinted at **Origins or Bust** logic without having to do any further lifting, though this venerable origins chestnut was of no more relevance to current thinking than the spontaneous generation debate in Pasteur's day. But it may have served a narrower intent if the idea was to solidify ID's scientific legitimacy by proxy, dangling Francis Crick of DNA fame and early life researcher Leslie Orgel (1927-2007) as some manner of scientific design precursors.

In the end, Pasteur's reticence on Darwin and **Deep Time** may just reflect a reluctance to stare too long into the abyss that modern antievolutionists confront on an even grandeur scale. Representing several enlarging data sets too many, and ones outside his area of expertise besides, they would only

have muddied the clearer conceptual waters offered by the **Origins or Bust** game. Instead, it was much easier to rest where their side had points, spontaneous generation safely buried. And modern creationists do the same: as long as abiogenesis isn't accomplished, the simpler **Origins or Bust** version of "evolution" is unproven (if not downright falsified). So we can understand and spare Pasteur a smile for resting on the effect his biogenesis research had on the materialists of the mid-19th century who thought to coax complex life from a gauze covered flask. Working out the true origin of life was not going to be that easy.

As for Pasteur's religious convictions, though not a particularly observant Catholic (rather like Darwin, his cathedral was his *work*), he was certainly no materialist, and occasionally voiced his disdain whenever materialist thinking got too bossy in the French academic world, Crosland (1992, 199). Here again the spontaneous generation debate was a ready redoubt here. And yet Wheeler (1889, 251) listed Pasteur as Vice-President of the *British Secular Union*, which would land him on the freethinker side of things—prompting Brendon Barnett (2011) at *Pasteur Brewing* (revel in those yeast!) and the *Celebrity Atheist List* (2012) more secondarily to haul him far afield of traditional theology. Amid the dueling authority quotes, though, a pause would be in order before speculating too broadly (devoid of clear declarations from Pasteur himself) as to whether his philosophical apple would not fall nearer to the more inclusive Francis Collins theistic evolution tree than to the narrowly-gated *Answers in Genesis* YEC orchard.

As we exit this spontaneous generation garden maze, the final piece of the Mark Toleman puzzle concerns where his piece appeared: Luke Randall's *Was Darwin right?* website—Randall being another creationist biologist who publishes regular work on bacterial resistance much as Toleman does. Toleman's spontaneous generation venture was rubbing shoulders with a *mélange* of YEC advocates, from astronomer Donald DeYoung and aircraft engineer Andrew McIntosh to Randall's plucky American protégé Joe Baker, *Was Darwin right?* (2011). An amiable response letter to *BCSE* (2007r) suggested Toleman hadn't given much thought to the general age of things that concerned the rest of *Was Darwin right?* How Pasteuresque. Instead, he had derived his convictions chiefly from his work experience with "the mind boggling complexity of bacteria let alone higher eukaryotes like ourselves" mapped into the general precepts of Jesus in the New Testament.

1.7 Section 21: Armed and Dangerous—Behe and the pitfalls of a little knowledge

Which digression on biogenesis battles (the sort of thing that would have been slipped into a lengthy footnote in the old days) returns us at last to the main path, to explore what was going on down inside those "mind boggling" bacteria, and see whether Michael Behe's cozy notions about the "limits of Darwinian evolution" squared with the details of the metallo- β -lactamases.

As seen through the lens of modern evolutionary phylogeny (a term coined by neologism lover Haeckel), where geochronology cannot be avoided in the way Pasteur appeared to have done in the 19th century, the MBL enzymes are an extremely ancient group in bacterial biology, the B3 family tracking back several billion years, with the distinct B1+B2 cluster originating a billion years later, as explored by Barry Hall *et al.* (2003; 2004)—that would be the Barry Hall of the paper Behe was using at Dover. The β -lactamase module shows up in a broad range of eubacterial functions, including RNA/DNA processing and repair, filtering in turn down the evolutionary pipeline all the way to insects and mammals, Daiyasu *et al.* (2001).

Concerning the modern players causing consternation among medical practitioners, the relevant feature of IMP-1 appears to have developed from IMP-3 (from which it differs by only two amino acids, at positions 126 and 262) by a single point mutation (guanine to adenine) at the codon level for position 262, Iyobe *et al.* (2000) and Materon & Palzkill (2001, 256). The replacement of IMP-3's glycine with serine expanded IMP-1's contact range for the hydrolysis of a variety of antibacterial drugs (including imipenem) that was the reason for Hall's 2004 caution flag.

Flip IMP-1's position 262 back to glycine (again by single point mutation) and you get IMP-6, Oelschlaeger *et al.* (2005), again with altered potency against many of the carbapenem antibiotics (a battery of ten would be in use by 2012) but fortunately at a tradeoff of lowered resistance to the venerable penicillin and the newer imipenem. And then there's IMP-25, E. Liu *et al.* (2012), which varied not only at S262G but differed from both IMP-1 and IMP-6 at G235S. That second minor mutation represented yet another conformation shape change from its cousins, leading to still more resistance to some of the carbapenems but less against others due to how its active edges interacted with neighboring molecules. Neither of those mutations were able to overcome the effectiveness of imipenem, though, confirming Hall's 2004 prediction about the relative security of that antibiotic when dealing with forms close to the IMP-1 model.

But why was that so? Behe never thought to ask, an example of ID ball dropping that becomes particularly interesting once all the details are put on the table.

As researchers followed up with the clinical investigation Hall recommended back in 2004, it turned out that the IMP family was very busy indeed, and not alone. *Thirty-three* distinct IMP strains had been uncovered by 2012, along with the same number for the related VIM family, and half a dozen more in a newly discovered NDM enzyme group, Widmann *et al.* (2012) and Meini *et al.* (2014). Some were single residue variants like IMP-6, IMP-10 and IMP-30, while others had many more (IMP-18 differed from IMP-1 in 48 places) with similar variety for the VIM family. Mutation hotspots "unexpectedly distant from the active site" were also discovered around the " $\beta\beta$ sandwich" part of the protein (at 208/266 for the IMP family and 215/258 for the VIM family) that turned out to be involved in the hydrogen bonding network that ultimately affected their catalytic efficiency (only asparagine or serine would do as a change at 208 in IMP, for instance, but once in place it was conserved in subsequent selective evolution).

A recent review of MBL evolution (natural and experimental) illustrated this "more than one way to skin a cat" approach to how this natural system had accomplished its antibiotic resistance:

A comparison of the available mutants in the numerous VIM and IMP families of MBLs surprisingly reveals that these groups have evolved their substrate specificities by different mechanisms. VIM enzymes accumulate mutations in the loops flanking the active site, mostly affecting the electrostatic interaction with the substrate carboxylate or loop flexibility. The same mechanism is observed for some IMP variants. In addition, substrate preferences among IMP variants are tuned by second sphere mutations. Meini *et al.* (2014, 307).

Similar diversity has appeared concerning the third player in this deadly game, the NDM family of MBLs, D. King *et al.* (2012), T. Li *et al.* (2013), and Zheng & Xu (2013), with NDM-1 transpiring as "the ultimate promiscuous enzyme," Y. Kim *et al.* (2013). A fungal compound has been found that blunts the resistance effects of NDM-1 (for the time being), Meziane-Cherif & Courvalin (2014) re Andrew King *et al.* (2014), with apropos perspective by Ann Reid (2014a-b) for the NCSE's *Science League of America* on how the evolutionary dynamics of natural mutation and bacterial plasmid exchanges are only slowed by such efforts, not banished. The ability of the component parts to sport all manner of resistance potential is highlighted further by Song & Tezcan (2014), artificially engineering new MBL forms to explore their properties.

All this means that the proteins (which, for old-timers like myself who grew up with land lines, resemble in schematic form—as most proteins do—a blobby tangle of linked phone cord coils) could naturally vary substantially in size and shape based on which mutations occurred and where, leading to different interactions in the bacterial environment. Position 235 lies on the IMP enzyme's surface, for example, and directly affects protein recognition when glycine is replaced by serine, while position 67 is

at the base of the β hairpin loop whose side chain leads to the active substrate recognition site, and the presence of any of four particular amino acids there (cysteine, serine, threonine or tyrosine) evidently contributed to the slightly increased resistance to imipenem noted by Hall (2004a).

But a far more salient point concerns whether a feature of the bacteria strain Hall used for his study (*Escherichia coli*) itself skewed the outcome. *E. coli* had been an obvious choice because it was both common and a prominent player in the field—representing 88% of the culprits in a Bangladesh study of urinary tract infections, for example, Lina *et al.* (2007). But its cell membrane happens to be especially permeable to *imipenem*, Matsumura *et al.* (1999), meaning that particular antibacterial agent was usually able to slip through the outer membrane faster than any of its competitors, evading by sheer molecular numbers the scattershot interference of the MBLs that might bind to it in the cellular fog.

The upper “limit” to the IMP-1 example might then be more a correlate of that diffusion rate, not the ability of IMP-1 to mutate substrate specificity to it (the evolutionary brick wall Behe wanted it to be). In that case, Hall’s prediction about the prospects for *increased* sensitivity to imipenem in IMP-1 based on his assayed reactions wouldn’t have been because “Darwinian evolution” had struck the sort of limit Behe imagined, but because the appropriate mutations *had already taken place* but were unable to translate into any *further* resistance because in the leaky environment of *E. coli* it couldn’t get any more bang out of its already full MBL arsenal.

So what was Nature up to in this realm of Darwinian limits? Well, the relevant bacteria seemed not to be reading *The Edge of Evolution*. At the same time Behe was name-dropping Barry Hall, Walsh *et al.* (2005) were warning how “nearly 30% of imipenem-resistant *Pseudomonas aeruginosa* strains possess a metallo- β -lactamase.” (A further irony here is that Mark Toleman was among the co-authors of the Walsh paper.) The virulence of *P. aeruginosa* was no surprise: it was a veritable integron magnet, surveyed by Strateva & Yordanov (2009), by which time it was accounting for 15% of hospital acquired infections worldwide. But to our point, the MLB in question was none other than plain old unmodified IMP-1. First detected in Japanese strains of *P. aeruginosa* in the 1990s, by 2004 (and hence knowable in principle to Behe in 2005) it was showing up in Singapore and China, Koh *et al.* (2004) and C. Wang & Mi (2004), often with silent mutation allele variations reminding us of the ever-playing mutational baseline running under the protein assembly dance.

And consider further that *P. aeruginosa* is one of those bacteria with a *low membrane permeability*, C. Wang & Mi (2006) and Lister *et al.* (2009). The busy OprD porin channels found in *E. coli* that offer imipenem easy entry are not expressed in *P. aeruginosa*. Instead, it relies on a much more restrictive water-filled *porin* system (with an analog also known in *E. coli*). Only 8% as permeable as the OprD method, it is just sufficient to let vital nutrients in—and judging by some European strains, *P. aeruginosa* may be able to manage the porin gateways so well that imipenem has no chance even without IMP or VIM genes, Strateva *et al.* (2007) and Sacha *et al.* (2012).

Overall, imipenem continues to be effective against the membrane-leaky *E. coli* vector, such as urinary infections in Iran, Falakian *et al.* (2011), though resistance to imipenem was found in a European *E. coli* strain after “horizontal gene transfer and chromosomal mutations” affected expression of its *membrane system proteins*, Poirel *et al.* (2004). Meanwhile, a vector sensitive susceptibility to imipenem has cropped up experimentally concerning IMP variants in *P. aeruginosa*: Toleman *et al.* (2003) again on the transposon hitchhiker IMP-13 and Jeannot *et al.* (2012) on IMP-29, where lowered resistance to imipenem *reappeared* when they were transferred for evaluation to (surprise!) *E. coli*.

The same thing happened when *E. coli* virulence tests were done for the IMP components in the imipenem-resistant enterobacterium *Serratia marcescens* involved in urinary tract infections and wound infections, W. Zhao *et al.* (2007). Interestingly, *S. marcescens* bumps into creationist apologetics, though less for its involvement in diseases than for its generating a bright red pigment on host media (like bread) that the devout formerly chalked up as a Catholic miracle. Creationist Gillen (2007c) barely mentioned the bacterium’s activities as an “Opportunistic Pathogen” while marveling at how it’s

“natural production of variable bright colors testifies of the Creator’s artistic abilities.” Gillen & Gibbs (2011) reprised this benignly designed view of *S. marcescens* for *Answers in Genesis*.

The ethics of bacteria making pretty colors along with human illness aside, the upshot is that with the IMP-1 family gang on hand, any imipenem that is forced to trickle through a *P. aeruginosa* membrane (or counterparts in *S. marcescens* or a suitably mutant *E. coli*) would run a greater risk of encountering the circulating MBL zinc mines the natural lottery had brought on the scene (possible outcome: you may die from whatever infection the imipenem isn’t helping you with anymore). Some “limit to Darwinian evolution” that turned out to be.

1.7 Section 22: Life on the Intelligent Design Mobius Strip—Skirting the creationist traffic jam

The framing of Intelligent Design at Dover has congealed into the standard apologetic model, as *Kulturkampf* antievolutionists declare their dedication to advancing genuine scientific discovery in a manner devoid of religious underpinnings even as they ignore most of what is actually going on in the scientific field and the glaring creationist demographics of the people pushing for **TTC** and “critical analysis” in education. As we’ve seen, the *Discovery Institute* set have consistently failed to spot any of the footprints of YEC antievolutionism that has been the core of the “Intelligent Design” campaign in the United State.

Following Dover, creationists like Chuck Missler (2005a) have shown no qualms about following the ID playbook in presenting “Intelligent Design” as all secular science facts and no religion, with web linking to the *Discovery Institute* where they could hear that choir in full harmony. But Missler constantly reminded us of what beliefs were actually tagging along behind that label in his milieu by including a string of exclusively absolutist YEC connections: *ICR*, *AiG* and Kent Hovind. Yes, the carefully trimmed ID road show didn’t quote scripture in public presentations, but Missler’s followers had only to click on the links and soon they’d be reading more grist for the **TTC** mill, such as Ken Ham (2004) on “Dinosaurs and the Bible” explaining how easily the evolutionary falsehood “that no man ever lived alongside dinosaurs” could be rejected “once you have key information that is not generally known and is withheld from the public.” As for geochronology, the area Joe Baker had excoriated Kostura for his supposed factual ignorance, Ham (1998) reminded readers of what the sole ultimate nonnegotiable authority was here: the “self-authenticating and self-attesting” Bible where the Earth being only a few thousand years old “is a *consequence* of accepting the authority of the Word of God as an infallible revelation from our omniscient Creator.” Not much wiggle room there, it would seem, whether you’re Phillip Johnson or Hugh Ross.

Kulturkampf politics played a role in a 2005 effort to retool South Carolina’s science education examine “alternatives to evolution,” Dillon (2005). The sponsor of the legislation, state Senator Mike Fair, served the district where *Bob Jones University* was located, and the Senate Education K-12 subcommittee was chaired by Robert Hayes, member of the splinter “Presbyterian Church in America” that split from the main church over the ordination of women. Concerted efforts by the *NCSE* and senators opposing the revision nipped that effort, though Fair plowed ahead regarding his new “Science Committee” (intended to marshal evidence for students to critically analyze) oblivious to the fact that the subcommittee vote had deleted its implementation.

Sen. Kevin Bryant (2006), a literal creationist supporter of Fair’s campaign, complained at his blog about “liberal bias in our educational establishment” and suggested anyone who would answer yes to the question “Should Darwinism be given special protection from inquiry?” was “in fear of the facts.” But that of course begged the question of whose “facts” they had in mind. Fair has continued to press his antievolutionary convictions from his committee position, though with limited success, Bowers (2014), and without the *DI* ever noticing the YEC underpinnings of the South Carolina “Intelligent Design” efforts.

Dillon reported that Fair “denied that any of his legislation had any religious content or motivation”

while listing “all the books on his shelves supporting his position, authored by such respected scientists as Gish, Behe, Denton, and Dembski.” But remember that Gish’s books did not contain any religious arguments any more than Behe, Denton or Dembski, belying the constant accusation of *DI* text parsers like Casey Luskin that YEC and ID parted company on this point.

The presence of Gish in Fair’s collection signified an increasing truism in the **TTC** debate: that grassroots believers do not perceive a difference between YEC and ID arguments, and so can easily mush them together. And part of the reason they can do that with impunity within the antievolution movement is because the Intelligent Design leadership had slid into their own version of “Don’t Ask, Don’t Tell.” Fair kept any details of what he believed out of boilerplate public statements, such as the need for “critical analysis” of evolution expressed by Fair & Seckinger (2006) posted by the *Discovery Institute*, and Robert Crowther (2006d-h) made no mention of what Fair’s understanding might be in his panegyrics there, which represented the latest transitional stage in ID apologetics by stressing in a Q@A piece that “Challenges to Darwinian evolution are not the same as proposed solutions, such as the scientific theory of intelligent design”—which just propped the door open even wider for other “proposed solutions” such as the Creation Science of the respected Dr. Gish residing on Fair’s South Carolina bookshelf.

In the years after Dover this pattern was repeated all over the country. There was a controversy over an El Tejon Unified School District “Philosophy of Design” course 2005–2006, *NBC News* (2006) and Scott (2006). The YEC commentary by Pam Sheppard (2006) at *AiG* and David Coppedge (2006a) may be compared to the arm’s length coverage by Robert Crowther (2006a-c) for the *DI*.

Michael Behe appeared on *The Colbert Report* in August 2007, a fairly benign appearance as he stuck to the familiar talking points and even the prodding of Colbert’s arch-conservative YEC persona failed to goad him into remarking on geochronology, Behe (2007l). The *DI* got a funding boost during the period when software developer Brendan Dixon contributed \$700,000 to the *DI’s Center for Science & Culture*, associated with molecular biologist Douglas Axe and zoologist Anne Gauger at Axe’s ID research facility, the *Biologic Institute*, Forrest (2008c, 192–193).

While the Kansas State Board of Education continued to support skeptical treatment of evolution in their standards, reported on by *Fox News* (2005f) and duly linked by Chuck Missler, general evolution teaching was restored in the 2007 Kansas Science Education Standards, Case *et al.* (2007).

The YEC underbelly of **TTC** continued to refuse to go away, such as the “Louisiana Family Forum Fact Sheet” including the antievolution “Battle Plan” of Kent Hovind (2000) in their site, which came to light after Louisiana Sen. David Vitter earmarked \$100,000 in Federal money for the Perkins’ *Louisiana Family Forum*, which Vitter removed after protests, Branch (2007b) and Walsh (2007). Forrest (2008b) surveyed the Louisiana Science Education Act.

Around this same time Vitter admitted to a “very serious sin” (that he did not otherwise specify) after his phone number turned up in the little black book of “D.C. Madam” Deborah Palfrey, Moran *et al.* (2007). Following the lead of convicted felon Kent Hovind’s demonological view of things (the sea into which the *Louisiana Family Forum* was dipping its oar ever so gently), was Satan luring this antievolutionist warrior into sinful lust as part of his Byzantine scheme to defend evolution? Or is there a much simpler explanation: all the pompous protestations about how morally corrosive evolutionary thinking was supposed to be was frequently belied by the serendipitous hypocrisy of the more ideological antievolutionists.

2007 also saw the Kris Hephinstine case, where a young biology teacher was fired from his position in Oregon for using creationist material, Alisha Wilson (2007) and Stollar (2007). Hephinstine had been doing a Darwin-Nazi eugenics *PowerPoint* presentation for some time, but at an Oregon high school he added a Ken Ham (2003b) article from *Answers in Genesis*, feeling he was not teaching creationism because he excised all references to God but was only “wanted for the kids to look at the science he was presenting, not the worldview.” Hephinstine acknowledged that the Ham piece “comes from a biased

source. You can see where the bias is—but the scientific information is accurate.”

But that was the point, was it “accurate”? And just how disposed was Helphinstein to “critically analyze” that? Ham’s article involved dog evolution and the range of speciation, an area of expertise in which Ham had none. If Ham was not dealing with most of the evidence and consequently was drawing invalid conclusions, without going deeply into the technical literature not covered by Ham, and making those resources available in his class, how could his high school biology students be expected to evaluate Ham’s credibility? Coppedge (2007g) contributed to the antievolutionist fog bank here as he riffed off the *Fox News* (2007) coverage of the Helphinstein affair to suggest Helphinstein got in trouble because he “dared question Darwinism” without mentioning what “supplemental material” was involved—though given Coppedge’s use of *AiG* and other YEC material himself, he presumably wouldn’t find any fault with it.

Ken Ham figured in a schism at *Answers in Genesis* during this period, *NCSE* (2006) and Petto (2007), with the Australian, New Zealand, Canadian and South African groups declaring independence as *Creation Ministries International* from the now Kentucky-grounded American branch. Its causes were obscure to those following the affair, though apparently involving power plays between founder Ken Ham and rival Carl Wieland, as well as how the *AiG* financial pie (by then topping \$10 million) was to be divvied. In the not entirely amicable process of separation the kids got yanked to and fro, with some of their resources (such as *Creation* magazine for general readers) ending up archived at *CMI* while others (such as the similarly titled and targeted *Creation Ex Nihilo*) are maintained *AiG*. Apparently they have no argument over theology or their creation science (as an even rudimentary familiarity with their views would attest) but differed over internal corporate organization.

CMI was interested in distributing editorial powers internationally and in being able to criticize fellow creationists for inaccuracy, while *AIG-US* was interested in maintaining control of content, not being subject to peer review by its international brethren, and refraining from criticism of the work of other young-earth creationists. *NCSE* (2006).

2007 also saw the rollout of *Explore Evolution* by Stephen Meyer *et al.* (2007), chronicled by Mead (2008). Just as *Of Pandas and People* had replaced “creationism” with “intelligent design” in the wake of *Edwards v. Aguillard* in the 1980s, the *Pandas* replacement *Explore Evolution* moved the goalposts again aiming to render it “legally unactionable” after *Dover*, Forrest (2008c, 191). That is how the latest Intelligent Design textbook ended up excising references to “intelligent design” altogether (no need for it in their Glossary or index), although the arguments being presented in front of the ever-shrinking curtain remained the same (novelty in their argument has not been an antievolutionary trait), and the concepts of *Explore Evolution* were those embodied in the 2005 Kansas standards, Matzke (2006d). Given the ineptness of *Explore Evolution* on the pivotal reptile-mammal transition (with similarly evasive treatment in the rival *Design of Life* book by Dembski & Wells), Downard (2014f), anyone thinking they were genuinely “exploring” evolution in *Explore Evolution* was being set up for a fall.

Barbara Forrest (2010a, 170) also noted after *Dover* the *Discovery Institute* “began its multistate promotion of model ‘academic freedom’ legislation that bears striking parallels to the 1980s balanced treatment laws.” Thus twenty years of strenuous legislative and courtroom punting and tackling had managed to move the Balanced Treatment football from yard line one back to yard line one.

With the 2008 *Expelled* movie (narrated by Ben Stein) the mantle of ID as a persecuted minority took hold, spurred on by the Sternberg affair occasioned by the biologist being called to the carpet over his editorial role in shepherding Stephen Meyer (2004b) into the *Proceedings of the Biological Society of Washington* (associated with the Smithsonian). Denyse O’Leary (2005b), *WorldNetDaily* (2005) and Bill Morgan (2005ag) reflected antievolutionist umbrage on this matter, while Sternberg (2006; 2008) illustrated how difficult it is to work out what Sternberg’s positions were on the big picture tenets of

evolution, Intelligent Design, or creationism.

But the *Kulturkampf* religious subculture was seldom far from the game, as evidenced by Indiana Congressman Mark Souder, interviewed in Souder (2004). His hearing on the Sternberg affair got him a spot in *Expelled!*, but his attraction to the venue went deeper (a fundamentalist upbringing that motivated him as a child to scratch out the *devil's* on the Devil's Food Cake packages in the kitchen and keep the Ten Commandments on display in his Capitol Hill office), David Brooks (2004). Souder took up the cudgels for Intelligent Design in Congress by hosting a briefing on Intelligent Design by the *Discovery Institute* in May 2000. When eight Baylor University professors (seven from their Biology Department and one from Psychology & Neuroscience) wrote a letter to object that Intelligent Design proponents were making “an emotional appeal and not a scientific argument” that was irrelevant to the existence of God anyway, Souder (2000) read into the Congressional Record how he was “appalled that any university seeking to discover truth, let alone a university that is a Baptist Christian school” could do that, since “qualified scientists are reaching the conclusion that design theory makes better sense of the data.” He also thanked Phillip Johnson for help in drafting this firm restatement of the *Discovery Institute* version of the world of science.

Souder's video notoriety from *Expelled!* highlighted his skepticism about evolution and how far removed ID was for political advocates like Souder from the grubby details of gene sequences or geological evidence. In an interview with Sylvia Smith (2008) for the Fort Wayne *Journal Gazette* Souder reflected the wide theological frame that hung around the blurry ID collage:

I personally believe that there is no issue more important to our society than intelligent design. As an evangelical Christian, I believe the premise of a fall being the core of reforming lives. I believe the concept of grace and forgiveness comes from having fallen from something. Now, how that occurred—whether you believe in the young earth theory, gradual evolution, or whatever—is disputed. Those became religious.

This sentiment had a singularly ironic timing to it, as Souder was about to do some falling of his own (along with some forgiveness asking) when the affair he was having with an aide became public and the option of being *expelled* himself was rendered moot by his resignation, Bresnahan & Allen (2010). Given his professed religious and antievolutionary convictions (and despite the close proximity of the Ten Commandments on his congressional desk) Souder's moral lapse appears to have been thoroughly uncontaminated by atheist secularism or Darwinian materialism.

By the time the Darwin Bicentennial rolled around in 2009, educators, scientists and secular advocates had taken to celebrating Darwin Day (either on his actual birthday, which he shares with Abraham Lincoln, or nearby weekends) to highlight science education as well as an opportunity to explain what evolutionary theory is (and isn't) about. Goodman (2008) described some of these efforts at the University of Tennessee, “one of the oldest Darwin Day organizations.” My old alma mater, Eastern Washington University, hosts a science speaker each year (as well as a Darwin birthday cake baking contest), and our local Spokane Secular Society has a Darwin Day table at a downtown shopping complex every year.

Even though these activities are education oriented, atheist groups often take the opportunity to highlight the religious conflict present in the creation/evolution debate, which draws the ire of *Kulturkampf* antievolutionists (and hence is a good reason for avoiding that minefield). During the 2013 Intelligent Design presentation at a Seattle church (the same event where I challenged Casey Luskin on punctuated equilibrium in section 1.3), John West of the *Discovery Institute* stressed the religion-bashing flavor of some Darwin Day activities with pictures he had taken of banners and signs that clearly showed what a low opinion atheists can have of Christianity and religion in general, and his church pew audience swelled with vicarious disdain over their blasphemy. During the Q&A I took issue with West's selective

characterization of Darwin Day, since in our local Spokane activities there is no criticism of religion whatsoever—you can see the flavor of our presentation in the handout material shown as an Appendix to Downard (2014f).

Don McLeroy (encountered in section 1.3 above) continued his antievolution activities in Texas after he became board chairman in 2007, meaning the TBOE now had seven antievolutionist members: chairman Don McLeroy, David Bradley, Terri Leo, and Gail Lowe as carryovers from the last textbook war in 2003, but now joined by Barbara Cargill, Cynthia Dunbar and Ken Mercer, Schafersman (2008c; 2009a,c) and Rosenau (2008; 2009a-b).

The backers of the revisions were now all in the “strengths and weaknesses” mode, a tradition antievolutionists had been invoking since the 1980s creationist legislative campaign. Not that McLeroy or the other evolution opponents on the TBOE were specially disposed to highlight any *strengths* of evolution, only the supposed *weaknesses*. By now *Explore Evolution* was on the scene, and several critics of the TBOE revisionism called attention to its problems if the idea was to use it as a reliable resource at all. Some explicit flirtations with YEC arguments still cropped up, as Lowe trotted out the venerable creationist canard about “polystrate” fossils and Cargill offered amendments relating to planetary formation and tectonics, Schafersman (2008c; 2009a).

Live blogging from the hearings, Steven Schafersman (2009a) reminded his readers that it was entirely appropriate to thrash out the strengths and weakness of a scientific hypothesis—and in its early days Darwin’s proposals were certainly in the hypothesis stage and were therefore understandably subjected to exactly that. But once the hypothesis does get tested, as Darwin’s ideas certainly were, that’s another matter. Some of the conclusions turned out to be wrong (particularly Darwin’s speculations on the mechanism of inheritance, at that time completely unknown), but the parts that have stood the test of time have graduated to the status of a proper scientific theory, and is used today as such. Harkening back to the issues of the early pre-theory days by dangling authority quotes from Darwin, as TBOE member Cory Cunningham did at one point by way of justifying their “strengths and weaknesses” approach, seriously misunderstood the scientific process when it comes to differentiating the *testing* of scientific hypotheses from the teaching of *tested* scientific theories.

Stephen Meyer (coauthor of the flawed *Explore Evolution*) stumbled over this very point when his turn came to testify, Schafersman (2009a):

First up is Dr. Stephen Meyer of the Discovery Institute, who says that the “strengths and weaknesses” phrase should be returned to the Texas science standards. He also said that Biology’s evolution standards are now too dogmatic and should be changed. They ask that the students “review” information about evolution rather than “evaluate and analyze” this information, which he considers a step back. He gave a PowerPoint presentation to explain why S&W should be returned to several places in the TEKS, especially to rule c3A. He claimed that earlier scientific theories, now known to be wrong, had weaknesses. He mentioned the phlogiston theory of chemistry, geosynclinal theory of geology, and Newton’s theory of gravity. In fact, phlogiston and geosynclines were hypotheses that never became scientific theories, and Newton’s theory is still accepted today, so Meyer was wrong on every count.

TBOE member David Bradley wanted Ben Stein of the *Expelled!* movie to speak before the board, but his speaking fee was out of their price range. The *Kulturkampf* character of this move was not lost on Schafersman (2009a), who noted Stein’s lack of qualifications to address scientific issues.

Schafersman (2009a) detected a certain partiality about how witnesses were treated before McLeroy’s TBOE:

Jonathan Saenz, attorney with the Free Market Institute, the Texas representative of Focus on the Family, testified next. Despite the fact that he testified on November 19, he was allowed to testify again while all the other individuals who spoke in November were moved to the bottom of the list and thus will not be able to speak. This violation of his own rules shows that Chair Don McLeroy is biased and not a fair administrator of his State Board. This is very unfair and I want to state my objection here.

In fact, several of the Creationist-Religious Right SBOE members were allowed to move up other of their speakers from down on the list and permit them to speak during extra time added at the end of the public testimony. However, while these were Creationists who had no understanding of evolution or science, they had not testified in November and this was the first time they addressed the Board about this topic. Only Jonathan Saenz was allowed to repeat his testimony from November. No scientist received this consideration.

McLeroy's tortuous proclivity for only thinking about things he wanted to think about spilled over into procedural matters, as Schafersman (2009a) observed a bit later:

Pat Hardy was outraged that seniority was not followed in the assignment of committee assignments. She and Mary Helen Berlanga, who both have seniority, were not placed on the committee of their choice, when they should have been appointed to different committees than what they intended. Mary Helen said, "This Board has just ignored its own rules that it recently adopted." Next, Geraldine Miller stated her opposition to what happened. "Why even have rules if you are going to ignore them," she asked. She spoke directly to Chairman McLeroy: "You are making a mockery of democracy when you handle issues in this way. Will the same thing happen next week, next month?" Mary Helen Berlanga pointed out that she meets all the requirements for preference and she got none of her committee choices. She asked why this is the case? These three ladies--with many years on the State Board and thus much seniority--were denied their requested committee positions. They were legitimately angry that the rules were not followed.

Texas has continued to be a flash point in the education wars, including further appearances by McLeroy. The creationist role in the Texas charter schools movement has been noted, *Texas Freedom Network* (2013e-f; 2014), Kopplin (2013d; 2014) and Brantley (2014). Though it is not often easy to identify this factor just by the typically uninformative boilerplate of a school's public face, such as the *ResponsiveED* (2013) parent/student booklet and website (*responsived.com*) that gave no indication of its curriculum content while affirming how student-friendly their environment was, all to encourage lifelong learning and worthwhile habits such as "Seek First To Understand, Then To Be Understood." Who could object to that?

Finally, an indication of just how disinterested ID is from religious apologetics, the *Discovery Institute* partnered up with *Focus on the Family* in 2014 to launch a college preparation DVD education program, *Science and God* (2014a-b), building on the explicitly Judeo-Christian apologetics of their 2010 *God & Evolution* book with *Faith & Evolution* (2011) as a study guide, and Michael Keas' 2011 *TrueU: Does God Exist?* John West (2014b) supplied a piece suggesting how Christian churches could press forward in a collegiate world where so many of the faculty are atheists or agnostics and included a 45-minute documentary, *The Toughest Test in College*, gratis "to qualified churches and schools (while supplies last)." While I qualified as neither of those, I did get my own copy of *Science and God* (2014c) sent to me in June 2014, thus possibly cheating some deserving church or school from the manifold pleasure of its

viewing.

What the 2014 *TrueU* initiative did illustrate was the narrow incestuous character of their resources. All of the written, video and website material offered reflected in-house *DI* apologetics or groups secondarily drawing on them, a one-stop Intelligent Design *Walmart* where visitors could meet all their spiritual and scientific needs in the world of Steve Meyer (their main DVD lecturer) without ever bumping into the competitive product over at the *ICR* or *AiG* big box stores just next door (let alone the far larger industrial park of the scientists actually doing the work out of their sight).

A signal that their *Kulturkampf* concerns hadn't mellowed much, though, came courtesy of the Keas (2014, 9) "Event Leader's Guide" conspicuously jumping onto what was by then a fast-sinking ship:

15. Some university faculty would consider it hate speech to even discuss the merits of research produced by social scientists that investigate ways to help those who wish to cease from homosexual behavior. To evaluate the legitimacy of this hate speech accusation, and to consider this as a case study that illuminates free speech disputes in other domains, visit <http://narth.com>—the National Association for Research and Therapy of Homosexuality. NARTH declares: "We respect the right of all individuals to choose their own destiny. NARTH is a professional, scientific organization that offers hope to those who struggle with unwanted homosexuality." Do professional organizations devoted to individual rights and academic integrity (rather than politically correct ideology) exist in your field of study?

This was an indication that the *Discovery Institute* (or *Focus on the Family*, to which they were now attached at the hip) was no more fitted to revising dogma based on new data on sexual orientation and the flawed character of the "research" on which NARTH built its edifice as they were willing to compare their own methodology to that of their very active rivals, YEC creationism.

Creationism was given no play at all apart from a brief study question, *Faith & Evolution* (2011, 4): "Why does the word 'creationism' carry so much baggage? Can you describe the different 'creationist' views? What is intelligent design and how does it differ from creationism." And thus were they excusing themselves from the unappetizing prospect of explaining how their demotion of methodological naturalism and giddy willingness to recycle the same hackneyed talking points (Cambrian Explosion, Haeckel's embryos, etc.) wouldn't let the YEC camp get to do just the same with their even bigger "critical analysis" data set (such as the *RATE* radioactive dating claims or Robert Gentry's polonium halos).

Instead, Keas (2011) reflected the cosmologically-oriented Natural Theology approach favored by current *DI* argument, heavy on anthropic coincidences and designer interpretations of DNA but just as shy on the current technical science world as the YEC literature they do not acknowledge, let alone address. All Keas (2014) did for this college campaign was to recommend as their core resources a trio of their own work: *Signature in the Cell*, *The Privileged Planet*, and *Explore Evolution* (which latter was the only source even purporting to address paleontology), with their *scienceandgod.org* website adding Meyer's *Darwin's Doubt* and Berlinski's *The Devil's Delusion* among the Recommended Resources.

"It's a Small World After All"—and its name is *Discovery Institute*.

The 2015 *NCSE* and *Evolution News & Views* retrospectives on the Dover ruling illustrated what did and didn't change about the antievolution movement.

Lead lawyer Rothschild (2015) reminded how the ruling meant the dam had not broken for keeping science education intact, even as antievolution efforts have not stopped. Lebo (2015) noted how antievolutionists (including the *Discovery Institute*) were trying to hitchhike on the school privatization movement, including charter schools and voucher efforts. Dover High School science teacher Jennifer Miller (2015), who characterized her own "cursory" pre-ruling focus on the non-controversial

microevolution side of things as “superficial and incomplete”, was inspired to improve her coverage of big picture macroevolution (even mentioning Intelligent Design, noting how much not science it is)—ironically the opposite of the trajectory antievolutionists would have wanted.

Ken Miller (2015) would similarly update the scientific side of the case by contrasting the lack of progress in Intelligent Design research with the exciting findings that surfaced since 2005 on Behe’s irreducible complexity examples, the bacterial flagellum and blood clotting, along with fundamental processes represented by Richard Lenski’s long term bacterial evolution experiments and Joe Thornton’s work on the evolution of new protein functions.

Eugenie Scott (2015c) compared and contrasted the Dover case with the 1982 *McLean* creationism trial, both of which explicitly turned on the scientific status of Creation Science and Intelligent Design respectively, along with their religious motivations:

The First Amendment prohibits the establishment of religion, not the teaching of bad science. It is perfectly legal, however dumb, to teach that the world is flat. It would not be unconstitutional to teach, as do the Raëlians, that life on Earth was seeded by extraterrestrials, even though it would be very bad science (and not even especially good science fiction). Policies requiring the teaching of creation science and ID in the public schools were struck down because those ideas are inherently religious, not because they are bad science. So in one sense, science was a secondary consideration in both *McLean* and *Kitzmiller*. Yet in an important sense, science was necessary to the plaintiffs’ success in both trials. *E. Scott (2015c, 7.3)*.

Those twin issues (antievolutionism’s poor science recruited in service of a theological mandate) manifested in the Dover board’s activity remain the salient ones, which brings us to the *Evolution News & Views* version, which paid as little attention to the Dover board’s activities (the subject of the trial, after all) as possible (still no mention of the likes of Buckingham), to make the issue just about them—the Discovery Institute version of Intelligent Design. So Casey Luskin (2015bq) headed a section: “The ID Textbook in the Dover Case Didn’t Advocate Creationism.”

A lawyerly circumlocution, since *Of Pandas and People* embodied all the claims and questionable methodological inferences of creationism insofar as they related to evolution, while simply bypassing the geochronology issue as a hot potato and not explicitly identifying the Designer or any of its properties or actions as a way to avoid legal repudiation. This song and dance had not worked at Dover.

As for Judge Jones’ ruling, Sarah Chaffee (2015i) continued to insist “there was *no need* to determine whether or not ID is science.” Similarly, David Klinghoffer (2016ai) claimed that “Jones took it on himself to decide the age-old question of whether nature gives evidence of design.” Never mind that *both* plaintiffs and defendants had insisted Jones rule on the scientific status of Intelligent Design, which Jones took note of in his extensive Gitschier (2008) interview. Klinghoffer (2016ca) continued to beat the DI/ID-centric version of Dover, once again never alluding to any of the creationist players there.

Chaffey was relying on Luskin’s legal take on the case, by the way, and Casey Luskin (2015bp-bq, bs-bt) and Sarah Chaffee (2015h-m) were essentially rearguing the case, reiterating their talking points at length (that ID was neither “religious” nor “creationism”, and is supported by a body of peer-reviewed evidence), text-parsing various media coverage of the case, and concluding that ID had not suffered a setback at Dover and was getting along just fine a decade later. Observers not part of their clubby set are disinclined to agree.