

NOT BY DESIGN

By

Anton E. Kunin

Based on:

Kitzmiller et al.

v.

DOVER AREA SCHOOL DISTRICT et al.

Case No. 04:04-CV-02688

First Draft
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OVER BLACK SCREEN:

SUPERIMPOSE:

But when *faith* is thus exalted
above everything else, it
necessarily follows that reason,
knowledge and patient inquiry have
to be discredited: the road to the
truth becomes a *forbidden* road.

Friedrich Nietzsche

FADE IN:

INT. DAHS, SCIENCE CLASSROOM 217 - NIGHT

Lights are turn off through Dover Area High School (DAHS)...
At the penumbra a painted hominid's head appears. The entire
critter emerges... alongside with other eight, each one as a
different hominid species all running across African savanna
throughout a long mural depicting THE MARCH OF PROGRESS...

INT. DAHS, NINTH GRADE BIOLOGY CLASS - MORNING

Before the class, Assistant Superintendent MICHAEL R. BAKSA,
40's, wearing suit and glasses reads from a sheet of paper:

MR. BAKSA

You will soon begin to study
Evolution in the class and the
Board of School Directors has
directed that the following
statement be read. The statement is
currently under litigation
therefore; the administration is
reading the statement not the
teacher.

I would like to make sure at this
time that everyone who would prefer
not to hear the statement is now
out of the classroom.

Then Mr. Baksa sight throughout the class... A cute brunette
Freshman with piercings, JESSICA KITZMILLER stands up... And
leaves the quite classroom... None follows her example...

MR. BAKSA (CONT'D)

Anyone else?

(beat)

Okay, the statement.

INT. DAHS, SCIENCE CLASSROOM 217 - NIGHT

Lamps flicking... Light turn on... Resting over a chalkboard tray, and crafted over two long four-by-eight foot pieces of plywood the mural stay at the back of the classroom.

MR. BAKSA (V.O.)

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

INT. DAHS, NINTH GRADE BIOLOGY CLASS - MORNING

Students pay attention... They seem slightly confused...

MR. BAKSA

Because Darwin's Theory is a theory, it continues to be tested as new evidence is discovered...

INT. DAHS, SCIENCE CLASSROOM 217 - NIGHT

The mural it's no longer at the chalkboard tray... Lamps are flicking again... Light turn off...

MR. BAKSA (V.O.)

... The Theory is not a fact. Gaps in the Theory exist for which there is no evidence...

INT. DAHS, NINTH GRADE BIOLOGY CLASS - MORNING

Mr. Baksa continues reading...

MR. BAKSA

... A theory is defined as a well-tested explanation that unifies a broad range of observations.

EXT. UNDEFINED WASTELAND - NIGHT

From an old pickup truck's rear cargo area, the mural's both pieces are throw down to the ground...

MR. BAKSA (V.O.)
 Intelligent Design is an
 explanation of the origin of life
 that differs from Darwin's view...

A late 60's, slovenly old man, LARRY REESER, spills gasoline over mural's pieces... Lights a match, and drop it... to the mural, which begins to burning...

MR. BAKSA (V.O.)(CONT'D)
 ... The reference book, Of Pandas
 and People, is available in the
 library along with other resources
 for students who might be
 interested in gaining an
 understanding of what Intelligent
 Design actually involves.

Mr. Reeser glances to the opposite side... There found out a short, sturdy, partially bald MAN... that before the bonfire seems as a shadow... ANGLE ON: Man's lips, which turn into a gleefully smile...

MR. BAKSA (V.O.)(CONT'D)
 With respect to any theory,
 students are encouraged to keep an
 open mind. The school leaves the
 discussion of the Origins of life
 to individual students and their
 families...

With bonfire as b.g., Man's silhouette contrasted before the flames that seems as trying to reach into the starry sky...

MR. BAKSA (V.O.)(CONT'D)
 ... As a Standards-driven district,
 class instruction focuses upon
 preparing students to achieve
 proficiency on Standards-based
 assessment.

CROSSFADE TO:

INT. INTERNATIONAL HUMAN-RESOURCES FIRM, MAILROOM - MIDDAY

Light's turn off... There electronic equipments' LEDs bright at the surrounding darkness... A slightly BUZZING...

Light's turn on, when Part-Time Employee MATT DUSS enters... At 30's, bearded, wearing glasses. He bears an envelope from which extract a ten-page document, whose cover page proceeds to photocopy several times... Thereafter leaves document and envelope on a near table.

Takes a snack from his jacket's pocket, and eat it. Suddenly he's realizing about the envelope's rubber-stamped warnings: TOP SECRET -- NOT FOR DISTRIBUTION. Pick up document's first page... Almost as start to reading it his eyebrows rise...

INT. TIM RHODES' HOME, RESTROOM - AFTERNOON

Sitting before a desk full of books, magazines, and CD cases
TIM RHODES, at 30's, fat and bearded, but wearing a baseball cap sight to a computer's monitor... Then begins to type...

ON MONITOR'S SCREEN

Don't be so sure of their passive
role in design.

After finally getting my scanner
up, I offer the following text
which was, er... "liberated" from
the Discovery Institute, a
Christian Think-Tank, by another
culture-jammer from our local cell.

BACK TO SCENE

Tim Rhodes continues typing...

ON MONITOR'S SCREEN

This is a rare look straight into
the belly of the Beast.

BACK TO SCENE

Behind him it's revealing a long poster of Charles Darwin...

ON MONITOR'S SCREEN

This is what we're up against, boys
and girls. You won't get this kind
of insiders view very often. These
people are not stupid and they
can't be easily dismissed as
loonies. These are educated,
intelligent, articulate, and
incredibly committed individuals.

And they have an agenda...

BACK TO SCENE

At flatbed scanner on Tim Rhodes' desk start brighten inside when it's activate... He turns to the computer's monitor.

ON MONITOR SCREEN

The scanned image begins to display by parts. Few couples of convergent lines appear at top... Some below, the document's title superimpose: THE WEDGE.

EXT/INT. HARRISBURG'S STREET/JUDGE JONES' CAR - EVENING

A semaphore turns from amber light to the red one...

FEMALE NEWSCASTER (V.O.)
... designed with the 'delicacy of
a butterfly'...

Few cars stop before the semaphore. Within drivers that wait U.S. District Judge JOHN E. JONES, III, just 50 years-old, a handsome, slightly sturdy, short curly grey haired man, hear through car's radio a NEWS PROGRAM.

FEMALE NEWSCASTER (V.O.)(CONT'D)
... the Millau bridge stands more
than 984 feet high, taller than the
Eiffel Tower, which make it the
world's higher bridge. Soaring high
above the morning's fog becomes one
of the most breathtaking bridges,
and a tourist attraction by its
own.

Now at the local news The American
Civil Liberties Union of
Pennsylvania, Americans United for
Separation of Church and State, and
Pepper Hamilton LLP attorneys filed
a federal lawsuit at the Middle
District of Pennsylvania in behalf
of eleven parents against Dover
Area School District, in York
County, after this passed a policy
to mandate the teaching of
intelligent Design at ninth grade
biology class.

Intelligent design, the notion that
certain features of living beings
are best explained by intelligent
agency instead...

ON THE SOUNDTRACK: The Radio Newscaster VOICE dissolves into increasing APPLAUSES.

INT. ADL'S NATIONAL EXECUTIVE COMMITTEE, AUDITORIUM - DAY

Into an elegant suit Judge Jones stands at a podium with the logo of the Anti-Defamation League (ADL). Behind him, a huge blue banner reproduces several times ADL's logo... APPLAUSES decrease... Judge Jones reads a speech:

JUDGE JONES

Now, on the subject of your mission, which according to the heading on your web site is in part to secure justice and fair treatment for all, in some sense what you do and what I do as a United States District Judge are very similar, or should be similar.

I want to use my time this morning to talk to you about several things that are important to me, and that I know are important to you as well. They involve not only matters attending the separation of church and state, but the related concept of an independent judiciary as well. Because I've become at least temporarily well known, or infamous depending on your point of view, due to a certain case that I presided over last year, I know that you're going to want to hear some things about the Dover case, and I'll certainly accommodate that, because it's in part a pretty good story. What I've avoided doing and what I'm not going to do is to get into an excessive analysis of why I ruled the way I did. I don't want to bore you to death, but in addition, I put out a 139-page opinion. And for those of you who are having trouble sleeping, I'll get you copies so you can read the whole thing.

There're at audience some LAUGHS and APPLAUSES.

JUDGE JONES (CONT'D)

Now, that said, there is typically a limit to the importance of what we do at the trial court level. By December of 2004, I had decided some interesting cases as a district judge, but I had no idea, none whatsoever, about what was about to hit my docket. On that month, one day in December of 2004, I was driving home from my chambers in Harrisburg and I heard on a radio program that a group of parents had filed a federal lawsuit in my district against a School District in Dover, in York County, Pennsylvania, concerning its policy introducing intelligent design into science classrooms. Now, I think that I'm pretty well read and generally worldly wise, but I will tell you that at that very moment in December of 2004, I had no idea what intelligent design was.

(beat)

Boy, do I know what intelligent design is now!

Some LAUGHS at audience, and APPLAUSES.

EXT. FEDERAL BUILDING, LOW FLOOR FRONT - MORNING

Before a marble-like sculpture of an eagle under the legend: FEDERAL BUILDING -- UNITED STATES COURT HOUSE, a real swarm of broadcasting Reporters and other Media Crew crowd around.

Lead Counselor for the Defendants RICHARD THOMPSON, at 60's, low complexion, strong built, silver-haired presides over an improvised street press conference. Cameras are shooting.

MR. THOMPSON

That this very modest proposal is in fact a violation of the establishment clause is ridiculous. This was anything else that becomes aware of Dover's students that there is in fact a legitimate scientific controversy over Darwin's theory of evolution.

Reporters loud "Mr. Thompson" looking to asks a question...

TV REPORTER #1

Mr. Thompson, the fact that the public interest law firm that you represent, the Thomas More Law Center introduces itself as, quote, The Sword and the Shield for People of Faith, don't worrying you about the religious implications over intelligent design?

MR. THOMPSON

All scientific theories, including Darwinism, have religious implications. And the religious implication of Darwinism is atheism. Furthermore, moral relativism, atheism and the idolatry of science are symptoms of our floundering society.

Reporters looking for another question...

NEWSPAPER REPORTER #1

Mr. Thompson, on your opinion what's actually the scientific status of intelligent design?

MR. THOMPSON

In my opinion intelligent design is a legitimate scientific theory.

Co-Lead Counselor for the Plaintiffs, ERIC J. ROTHSCHILD, at middle 30's, bald, wearing glasses speak through microphones on a podium. He bears a book. Cameras are shooting...

MR. ROTHSCHILD

Good morning, ladies and gentlemen. First at all I want to thank everybody here to cover this important case. The reason why we filed this lawsuit was because the members of this school board have made their own religious beliefs part of the high school's science curriculum.

Then lift up the book: *Of Pandas and People*... The shootings increase...

MR. ROTHSCHILD (CONT'D)

This policy is not only unconstitutional, it is bad science. And this trial has to

MR. ROTHSCHILD (CONT'D)
 establish an undeniable precedent
 to anyone who pretends to do the
 same across the nation.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

At the left wall a large screen was installed. At the bench, the counsel tables, the witness stand, and the jury box were computer's monitors as well. The jury box is occupied by the press... Judge Jones comes from his chambers. [NOTE: through the trial proceeding Judge Jones is referred as THE COURT.]

COURT DEPUTY

All rise! The Court for the Middle
 District of Pennsylvania is in
 session. The Honorable John E.
 Jones, III presiding.

All rise, and seated after The Court do it at the bench.

THE COURT

Good morning to all. Let me welcome
 our spectators to this and the
 parties, of course, and the media
 to this important case.

(to Mr. Rothschild)

With that, are you prepared to
 open?

MR. ROTHSCHILD

Yes, I am.

THE COURT

You may do so.

MR. ROTHSCHILD

Good morning, Your Honor. My
 co-counsel and I represent eleven
 parents who are challenging the
 Dover Area School District's change
 to its biology curriculum. That
 change to the biology curriculum,
 which is displayed on your monitor
 and on the screen...

The Administrator's Biology Statement in Biology Class, as
 Mr. Rothschild says appears in all the visual advices.

MR. ROTHSCHILD (CONT'D)
... singles out the scientific theory of evolution, among all the scientific concepts taught to Dover High School students, as being suspect and promotes the religious proposition of intelligent design as a competing scientific theory.

At the visual advices a series of photos of apes and extinct hominid species reconstructions are displayed.

MR. ROTHSCHILD (CONT'D)
Eighteen years ago, the United States Supreme Court, in Edwards versus Aguillard, held that public schools could not teach students creation science because that proposition's core concept of a supernatural creator is religious, not scientific, and therefore violates the establishment clause of the First Amendment to the United States Constitution. The Court recognized that the teaching of creation science was motivated by a religious and cultural agenda, not the improvement of scientific education.

What the board did was add creationism to the biology curriculum under its new name, intelligent design. Intelligent design is not identical in every respect to the creation science previously addressed by the Supreme Court in Edwards and other courts, but in all essential aspects, it is the same. Intelligent design really is a perfect example of evolution. Throughout this century, religious opponents of evolution, concerned that evolution contradicts a literal reading of the Bible and promotes cultural decay, have employed varying tactics to denigrate or eliminate the theory of evolution in the minds of young students.

Each of those tactics have been found unconstitutional by courts.

MR. ROTHSCHILD (CONT'D)
 Confronted with that inhospitable
 legal environment, creationists
 have adapted to create intelligent
 design, creationism with the words
 'God' and 'Bible' left out.

What we will prove at this trial is
 that the Dover board policy has the
 same characteristics and the same
 constitutional defects as the
 creation science policy struck down
 in Edwards. You will hear testimony
 from members of the Dover
 community, these parents, teachers,
 administrators, and board members,
 about how this change to the
 curriculum came to be...

INT. NSES, CAFETERIA - EVENING (JUNE 7TH, 2004)

At North Salem Elementary School (NSES), a Dover Area School
 District (DASD) Board of Directors' meeting is current.

At a podium, ARALANE "BARRIE" CALLAHAN, 50's, an attractive,
 blonde curly-haired, compact woman hit with her index finger
 to a microphone.

MRS. CALLAHAN
 (speaking at the microphone)
 Is this turn on? Do you can hear
 me?

At square of tables, are seated the DASD Board of Directors.
 Board President ALAN BONSELL, at 40's, handsome and bearded,
 speak out through a microphone.

MR. BONSELL
 Yes, Mrs. Callahan, we can hear
 you.

Some shy LAUGHS... Barely two dozen of persons are there...

MRS. CALLAHAN
 Thanks. Good evening, everyone. My
 name is Barrie Callahan, as you
 know. I have a daughter, Katie, who
 attends Dover high school. She is
 going to take chemistry, and I will
 to be upset if she going to be in a
 class that didn't have chemistry
 book to take home.

Some shy LAUGHS again...

MRS. CALLAHAN (CONT'D)

I glad to found out this book is scheduled for approval today. But my area of concern still that biology textbook hadn't, and my daughter had already gone through biology and didn't have a biology book. So, I'm wondering why this was not slated for approval yet.

MR. BONSELL

Well, Mrs. Callahan. We have hear you asking about this thorough months. So, speaking frankly...

WILLIAM BUCKINGHAM, at late 60's, short, partially bald, and slightly sturdy, with glasses be hoarse before to speak...

MR. BUCKINGHAM

I will try to respond her, Alan. The problem with the book you ask for, Mrs. Callahan, although the book has been available for review since May 2003, I had just recently reviewed by myself. And I was disturbed that the book was laced with Darwinism.

Board Member NOEL WENRICH nods. 40's, tall, bald and sturdy, points from Mr. Buckingham to Mrs. Callahan.

MR. WENRICH

Yes, that's right. I'm agreeing with Bill.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 02/AM SESSION)

STEPHEN G. HARVEY, 40's, tall, gray-haired, slightly sturdy. Mrs. Callahan Direct Examination by Mr. Harvey.

MR. HARVEY

Who is Bill Buckingham?

MRS. CALLAHAN

Bill Buckingham was a school board member at the time.

MR. HARVEY

Did he have responsibility for any particular committee on the board at that time?

MRS. CALLAHAN

At the time he would have been
chair of the curriculum committee.

MR. HARVEY

What did you do after Mr.
Buckingham made that comment about
laced with Darwinism to you?

INT. NSES, CAFETERIA - EVENING (JUNE 7TH, 2004)

Mrs. Callahan seems really shocking...

MRS. CALLAHAN

Oh, so this is about evolution!

After a pause, Mrs. Callahan backs to her seat...

MR. BONSELL

Well, there is... I want to tell,
to all of you, that our duty call
us to found out a biology textbook
that would satisfy teachers,
parents and the board as well.
Having this in mind, were trying to
make Dover the best school district
it could be. That's our goal.
However, If anyone has anything to
say regarding this matter, well...
This is your chance.

Meanwhile Mr. Bonsell's speaking, College Student MAX SPELL,
middle 20's, a handsome young man, seat beside Mrs. Callahan
approach to her.

MAX PELL

Mrs. Callahan?

MRS. CALLAHAN

Yes? What is it, Max?

MAX PELL

Would it be okay if I got up to
address the school board?

MRS. CALLAHAN

I would think so. It's still public
comment and, you know, go ahead.

Max Pell nods... But he's dubious.

MR. BONSELL

Anyone else? Then we can take as finish the public comment section and...

Suddenly Max Pell stands up.

MAX PELL

Excuse me, sir... May I be able to say something in regard to Mrs. Callahan concern on biology textbook?

After a pause, Mr. Bonsell, with a gesture points toward the podium...

MR. BONSELL

All right...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 02/AM SESSION)

Mrs. Callahan Direct Examination by Mr. Harvey continues.

MR. HARVEY

And what did he say?

MRS. CALLAHAN

He started questioning them, he explained actually that he was a biology major at Penn State, and he started to explain to them how important evolution is to a biology curriculum. And as he was explaining things to them, several of the board members were talking back to him. So it was an exchange.

MR. HARVEY

I'm not sure if I asked you, can you tell us the name of this student?

MRS. CALLAHAN

Oh, Max Pell.

MR. HARVEY

When you say he was a student, he was a college student?

MRS. CALLAHAN

He was a college student, yes.

MR. HARVEY

What was his demeanor during this exchange?

MRS. CALLAHAN

He stayed calm. I was really impressed how he was handling himself. I mean, he was a young man and these were adults kind of threatening him. They were rude at times I thought.

INT. NSES, CAFETERIA - EVENING (JUNE 7TH, 2004)

Max Pell addresses the Board of Directors from the podium...

MAX PELL

I realize I had summarized, expose in a thumb, if you wish, how evolution has become the concept that unify all branches on biology. Therefore, thorough Darwin's theory...

MR. BONSELL

Hey, wait! As I'm understood, there were only two theories, creationism and evolution, that could possibly be taught. As long as both were taught as theories, there would be no problem for the district, I thought.

MAX PELL

Pardon? Creationism?

MR. BUCKINGHAM

Creationism, that's right. Do you know? I'm unhappy with the proposed nine grade biology textbook because it teaches evolution and not creationism. What do you say to that?

MAX PELL

Creationism is a religious theory. Why does it have to be taught in biology class? That's no science!

MR. BUCKINGHAM

Really? Then all I'm asking for is balance. We want a new biology book

MR. BUCKINGHAM
for the district should offer a balance between creationism and Darwin's theory of evolution. That's all. In science, there are competing theories. When you cease to present both, the remaining one becomes fact.

MAX PELL
I'm sorry sir, but would be better if I'll try to clarify what theory means on science. Afterwards will be clear why creationism...

MR. BUCKINGHAM
Have you ever heard of brain washing?

MAX PELL
What?

MR. BUCKINGHAM
You was hear me. You're a perfect example of what happens to students when they go to college. They get brainwashed. If students are only taught evolution, it stops becoming theory and becomes fact.

MAX PELL
I'm afraid here's a real misunderstanding regarding what a theory means. You cannot consider equal a theory with a hypothesis, for instance, but even then creationism does not...

Suddenly, from a pocket into his jacket Mr. Buckingham takes off a picture of former mural about The March of Progress at classroom 217. Show it to Max Pell.

MR. BUCKINGHAM
Do you really expect I would believe that I was ever descending from apes and monkeys? I don't think so. To me, it's inexcusable to teach from a book that says man descended from apes and monkeys. We want a book that gives balanced education.

Mr. Buckingham takes back the picture at his jacket.

MAX PELL

With due respect, gentlemen, not because you think that creationism is a scientific theory that should make it true. You're free to believe anything you wish... Fine! But what concern to me is if you choice for a book on creationism, that type of book would trample on the separation of church and state. And you'll in problems. You would be hauled into a lawsuit... I assure you.

MR. BUCKINGHAM

You think... Then let me tell you that I believe the separation of church and state is mythical, and not something that I support, by the way. Nowhere in the Constitution does it call for a separation of church and state. Do you know that?

Board Member JEFFERY ALLEN BROWN, in late 50's, nice, auburn hair, thick glasses, and wearing an ascot cap speaks.

MR. BROWN

Why don't we get a time to though on what this young fellow was told us? I think he have a point about the legal consequences if the board follow the path that you, Alan and Bill are considering.

MR. BUCKINGHAM

On what side are you, Jeff? I really want know it.

MR. BROWN

What else? I'm with our students, of course. And with my oath of office to the district as well.

MR. BUCKINGHAM

This is ridiculous!

MR. BONSELL

Probably will better if we take a time to...

MR. BUCKINGHAM

What happen to you, people? What's wrong with you? This country wasn't founded on Muslim beliefs or evolution. This country is founded Christianity, and our students should be taught as such. Two thousand years ago someone died on a cross. Can't someone take a stand for him?

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

KENNETH R. MILLER, PH.D., middle 50's, handsome and bearded, it's on Direct Examination by WITOLD "VIC" WALCZAK, at 40's, auburn hair, sharpen features.

MR. WALCZAK

Dr. Miller, I want to elicit your opinions about the big issues in this case. What is science?

DR. MILLER

You ask a good question. It's useful, I think, to parse it to where the word comes from. The word 'science' comes from the Latin word scientias, which means knowledge. And in the most general sense, the word 'science' is sometimes used to just say learning systematic knowledge, for example, library science or political science.

But I think that in the context in which the word 'science' is going to be used in this case is what we would call natural science, sciences such as chemistry, physics, and astronomy. And natural sciences I think are best described as the systematic attempt to provide natural explanations for natural phenomena.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 03/AM SESSION)

ROBERT T. PENNOCK, PH.D., 40's, tall, blonde and bearded, on Direct Examination by Mr. Rothschild.

DR. PENNOCK

Science is probably most characterized by its way of coming to conclusions. It's not so much the set of specific conclusions that it comes to, but the way in which it reaches them. In philosophy we talk about this as epistemology, it's a way of knowing, and science has limits upon itself. It follows a particular method. It has constraints. It requires that we have testable explanations. It gives natural explanations about the natural world.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

At visual advices, appear highlighted the first paragraph of Chapter 3: Evolution and the Nature of Science from National Academy of Sciences, (NAS): *Teaching About Evolution and the Nature of Science* (1998).

MR. WALCZAK

I'd like to direct your attention to Page 27 of Exhibit 649. I've asked you before to highlight a passage on this page. Could you please read for the record the highlighted passage?

DR. MILLER

Be glad to. And it says, and I quote, Science is a particular way of knowing about the world. In science, explanations are restricted to those that can be inferred from confirmable data, the results obtained through observations and experiments that can be substantiated by other scientist. Anything that can be observed or measured is amenable to scientific investigation. Explanations that cannot be based on empirical evidence are not a part of science.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 03/AM SESSION)

Dr. Pennock Direct Examination by Mr. Rothschild continues.

MR. ROTHSCHILD

Is there a name or term of art for this rule of science that it must look for natural explanations for natural phenomena?

DR. PENNOCK

Scientists themselves may not use the term. This is something that philosophers of science use, but the term is methodological naturalism, and the idea is that this is a form of method that constrains what counts as a scientific explanation.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 06/AM SESSION)

BARBARA FORREST, PH.D., middle 50's, slim, cute redhead with glasses. Cross Examination on Qualifications under ROBERT J. MUISE, at late 30's, slightly sturdy, partially grey-haired.

MR. MUISE

And methodological naturalism is a convention that's imposed upon scientific inquiry, is it not?

DR. FORREST

No, it's not a convention that is imposed upon scientific inquiry. Methodological naturalism is a methodology. It's a way of addresses scientific questions. It reflects the practice of science that has been successfully established over a period of centuries. It's not imposed upon science. It reflects the successful practice of science.

MR. MUISE

Well, you would agree it places limits on scientific exploration?

DR. FORREST

It does place limits on what science can address, that's correct.

MR. MUISE

Should scientist be allowed to follow the evidence where it leads or should they be constrained to follow the evidence only where materialism allows?

DR. FORREST

Science by its nature and on the basis of its successful practice cannot address questions of the supernatural, and that's because the cognitive faculties that humans have will not take us beyond the reach of those faculties. And so science is really an intellectually quite humble process. It does not address supernatural claims. It has no methodology by which to do that.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Dr. Miller Direct Examination by Mr. Walczak continues.

MR. WALCZAK

So supernatural causation is not considered part of science?

DR. MILLER

Yeah. I hesitate to beg the patience of the Court with this, but being a Boston Red Sox fan, I can't resist it. One might say, for example, that the reason the Boston Red Sox were able to come back from three games down against the New York Yankees was because God was tired of George Steinbrenner and wanted to see the Red Sox win.

Some LAUGHS at the courtroom.

DR. MILLER (CONT'D)

In my part of the country, you'd be surprised how many people think that's a perfectly reasonable explanation for what happened last year. And you know what, it might be true, but it certainly is not science, it's not scientific, and it's certainly not something we contest.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 03/AM SESSION)

Dr. Pennock Direct Examination by Mr. Rothschild continues.

DR. PENNOCK

And it's very clear at that point then that when one does science, one is setting aside questions about whether the gods or some supernatural beings had some hand in this. A classic example had to do with meteorological phenomenon, lightning. It would have been thought or that lightning perhaps would have been an expression of God's displeasure, right? That God by design would send lightning somewhere, and it was one of the founding fathers, Benjamin Franklin of course, who investigated lightning under this assumption of methodological naturalism and said you can have a natural explanation of lightning, it's electricity.

And that's an example of this shift, a shift as saying we're not going to say what God may or may not be doing with sending lightning bolts. We'll simply say let's examine this as part of the natural laws of nature. Today this is just firmly entrenched.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Dr. Miller Direct Examination continues by Mr. Walczak.

MR. WALCZAK

So science doesn't -- these rules don't just apply in the United States?

DR. MILLER

No, sir, they don't. I think science might be the closest thing we have on this planet to a universal culture, and these rules apply everywhere.

MR. WALCZAK
Is this just a view held by
Professor Miller?

DR. MILLER
No, I don't think so. I think the
way I have described science and
the process of science would be
generally held by most members in
the scientific community.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 03/AM SESSION)

Dr. Pennock Direct Examination by Mr. Rothschild continues.

MR. ROTHSCHILD
So methodological naturalism is
basic to the nature of science
today?

DR. PENNOCK
As I said, I could not find an
exception to that.

INT. NSES, CAFETERIA - EVENING (JUNE 14TH, 2004)

At the podium, CHARLOTTE BUCKINGHAM, much alike her husband,
but wavy hair, lecture to the audience, around 150 persons.

MRS. BUCKINGHAM
*And God said, Let the earth bring
forth the living creature after his
kind, cattle, and creeping thing,
and beast of the earth after his
kind: and it was so.*

*And God made the beast of the earth
after his kind, and cattle after
their kind, and every thing that
creepeth upon the earth after his
kind: and God saw that it was good.*

Exception of the Browns, Board of Directors muttered "Amen."

MRS. BUCKINGHAM (CONT'D)
*And God said, Let us make man in
our image, after our likeness: and
let them have dominion over the
fish of the sea, and over the fowl
of the air, and over the cattle,
and over all the earth, and over*

MRS. BUCKINGHAM (CONT'D)
*every creeping thing that creepeth
upon the earth.*

*So God created man in his own
image, in the image of God created
he him; male and female created he
them.*

Board of Directors: "Amen."

MRS. BUCKINGHAM (CONT'D)
At God's image mankind was created,
the Bible teaches us. Not from apes
and monkeys as evolution taught.
Evolution teaches nothing but lies.
Therefore teaching evolution is in
direct opposition to God's
teaching, how can we allow anything
else to be taught in our schools?
And that the people of Dover could
not allow the district to teach
anything but creationism to our
high school students.

Board of Directors: "Amen."

MRS. BUCKINGHAM (CONT'D)
Therefore we should remember what
the Gospel tells us on Matthew
18:6.

*But whoso shall offend one of these
little ones which believe in me, it
were better for him that a
millstone were hanged about his
neck, and that he were drowned in
the depth of the sea.*

Again, but a louder: "Amen."

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 04/AM SESSION)

Former Board Member CAROL HONOR BROWN, at 50's, auburn hair,
with glasses. Direct Examination by Mr. Rothschild.

MR. ROTHSCHILD
What was said at this board
meeting?

MRS. BROWN

There were comments from the audience, including what I can only describe as a Chautauqua by Mr. Buckingham's wife, Mrs. Charlotte Buckingham. Our normal public comment is limited to five minutes per person, and Mr. Bonsell as board president chose to allow her to continue on for between ten and fifteen minutes, sir.

MR. ROTHSCHILD

Educate me, what's a Chautauqua?

MRS. BROWN

Chautauqua to me as I grew up is an old time Christian tent revival. Very often they were held at the York Fairgrounds. I mean no disrespect, but the quote was come to Jesus meetings.

MR. ROTHSCHILD

That's not an expression that Ms. Buckingham used at the meeting? It's just how you're describing these tent revivals?

MRS. BROWN

Actually she described how to accept Christ as your personal savior. She read portions of scripture and lectured us on our responsibilities to teach our children the truth.

MR. ROTHSCHILD

Did she talk about the subject of evolution or creationism in this talk?

MRS. BROWN

She spoke very vehemently in favor of creationism and against evolution, and she exhorted us as a board to do whatever it took, even to the point of taking it to the Supreme Court, which her husband had also stated.

MR. ROTHSCHILD

How did the board members besides yourself react to Charlotte Buckingham's statement?

MRS. BROWN

There were muttered amens, sir.

INT. NSES, CAFETERIA - EVENING (JUNE 14TH, 2004)

Mr. Buckingham uses a cross-shape lapel pin with the colors, bars and stars of the American flag.

MR. BUCKINGHAM

In other words, I want to apologize to anyone I may have offended, residents or teachers as well, with the comments I made the last week's board meeting. Regarding that I apologize about my tone at the time.

MR. BONSELL

Very well, all right. Thanks Bill. I'm sure everybody here really should appreciate...

MR. BUCKINGHAM

Whatsoever, that doesn't change the fact that this country was founded on Christianity and not other religions, and that a liberal agenda was chipping away at the rights of Christians in this country.

MR. BONSELL

Bill, what about if may we...?

MR. BUCKINGHAM

While growing up my generation prayed and read from the Bible during school. Then liberals in black robes were taking away the rights of Christians. Two thousand years ago someone died on a cross. Can't someone take a stand for him? Nowhere in the Constitution does it call for a separation of church and state. And about the teaching of Darwinism, I challenge you, the audience, to trace your roots to the monkey you came from.

A VOICE is hearing LOUD within the audience.

LOONIE LANGIONI (O.S.)
Oh, c'mon, Bill! Let alone all
those poor monkeys!

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 08/PM SESSION)

CYNTHIA SNEATH, 30's, a slim, attractive short-hair redhead.
Direct Examination by Mr. Walczak.

MR. WALCZAK
And do you have any particular
background in science?

MRS. SNEATH
No.

MR. WALCZAK
Do you have a personal interest in
science?

MRS. SNEATH
Not personally, no. You know, I
have an interest for my son, who
actually shows a great interest in
science.

MR. WALCZAK
And which child is that?

MONTAGE UNDER MRS. SNEATH TESTIMONY: There's GRIFFIN SNEATH,
seven-years-old runs through a garden bearing a model of the
space shuttle... Seated on floor with her mother, both sight
at TV a space shuttle launches...

With his parents visit the Steven F. Udvar-Hazi Center. They
stop before space shuttle *Enterprise*... Griffin Sneath looks
so clearly fascinating with the spaceship...

MRS. SNEATH (V.O.)
My second-grader, my
seven-year-old.

MR. WALCZAK (V.O.)
And why do you say he shows a great
interest?

MRS. SNEATH (V.O.)
Many reasons. You know, don't get
him started on talking about the
NASA space shuttle program. I mean,

MRS. SNEATH (V.O.)
just everything he does is very
science-oriented. It's just
something he obviously enjoys.

BACK TO SCENE

MR. WALCZAK
So was there some point in time
where your interest really became
focused on what was going on at the
school board meetings?

MRS. SNEATH
Yea. And it was very general. And
that would have started probably
sometime in the summer, I would
think.

MR. WALCZAK
And was it about that time that you
decided that you wanted to find out
more about this topic of
intelligent design?

MRS. SNEATH
Well, I had never heard the
terminology, so, you know, my
inclination is typically to go to
the Internet, and that's where I
started my research. And there was
a lot of information available.

MR. WALCZAK
Did you find information in your
Internet search about the Wedge?

MRS. SNEATH
Yes, yes. And I don't remember
specifically what site it was.
There was a link to it. And then,
yeah, I read the Wedge document,
which was kind of a real eye-opener
for me.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 10/AM SESSION)

MICHAEL J. BEHE, PH.D., early 50's, short, bearded and bald,
wearing glasses. Direct Examination by Mr. Muise.

MR. MUISE

Sir, what is intelligent design?

DR. BEHE

Intelligent design is a scientific theory that proposes that some aspects of life are best explained as the result of design, and that the strong appearance of design in life is real and not just apparent.

MR. MUISE

Is intelligent design based on any religious beliefs or convictions?

DR. BEHE

No, it isn't.

MR. MUISE

What is it based on?

DR. BEHE

It is based entirely on observable, empirical, physical evidence from nature plus logical inferences.

MR. MUISE

Now I want to review with you the intelligent design argument. Have you prepared a slide for this?

Over the visual advices, appears a slide: Intelligent Design Argument, with four points followed explained by Dr. Behe.

DR. BEHE

Yes, I have. On the next slide is a short summary of the intelligent design argument. The first point is that, we infer design when we see that parts appear to be arranged for a purpose. The second point is that the strength of the inference, how confident we are in it, is quantitative. The more parts that are arranged, and the more intricately they interact, the stronger is our confidence in design. The third point is that the appearance of design in aspects of biology is overwhelming.

The fourth point then is that, since nothing other than an

DR. BEHE
intelligent cause has been
demonstrated to be able to yield
such a strong appearance of design,
Darwinian claims notwithstanding,
the conclusion that the design seen
in life is real design is
rationally justified.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

KEVIN PADIAN, PH.D., at 40's, nice, mostly characterized due
his so abundant, totally white-hair... Direct Examination by
Mr. Walczak.

MR. WALCZAK
What's wrong with this appearance
of design analysis from a
scientific standpoint?

DR. PADIAN
Well, it's not particularly
rigorous. Lots of things look
designed, but they may not
necessarily be designed.
Intelligent design looks a lot like
science in some respects, but it's
only superficial. It doesn't
operate according to the principles
of science, so the resemblances are
superficial.

And appearances can be deceiving.
For all the world, it looks like,
you know, to us normal people, that
the sun goes around the Earth. And
for most people, it wouldn't make a
difference whether the sun went
around the Earth or it went around
the moon, as Sherlock Holmes
famously said to Watson. But when
the renaissance scholars
understood, found out that, in
fact, the sun does not go around
the Earth but the Earth and the
planets go around the sun, it
changed the way we look at the
whole natural world in a very
important and fundamental way.

And so part of the process of
science is to discover things that

DR. PADIAN
 will make a difference to our
 understanding of the natural world
 and not simply to reinforce
 appearances that are very difficult
 to test in an objective or testable
 sense.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Dr. Miller Direct Examination by Mr. Walczak continues.

MR. WALCZAK
 Dr. Miller, I want to shift gears.
 We just talked about the science
 and the nature of science, and I
 want to now move to the topic of
 evolution. What is evolution?

DR. MILLER
 You always ask good questions.

MR. WALCZAK
 Thank you.

DR. MILLER
 Most biologists would describe
 evolution as a process of change
 over time that characterizes the
 natural history of life on this
 planet.

MR. WALCZAK
 And are there certain core
 propositions to evolutionary
 theory?

DR. MILLER
 Yeah, I think there are, and I
 think basically there are three.

EXT. HYDROTHERMAL VENT - DAY (505 MILLION YEARS AGO)

IMAGE INTENSIFIER EFFECT: Advanced over the deep sea's bed a
 column of *Ogygopsis klotzi* trilobites suddenly disperse when
 are under attack by one *Anomalocaris canadensis*, which catch
 an *O. klotzi*, and proceed to feeding with it.

DR. MILLER (V.O.)
 And the first one is the
 observation that life really has

DR. MILLER (V.O.)
changed over time, that the life of
the past is different or was
different from the life of the
present, and that the natural
history of this planet is
characterized by a process of
change over time.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

CGI UNDER DR. MILLER: From a spherical proto-cell, many thin
branches start to emerge. Since those develop, as appears at
the Tree of Life Web Project, superimpose over some branches
the image of a eukaryote cell, a worm, a flower, a mushroom,
a frog, and a butterfly.

DR. MILLER (V.O.)
The second thing, the second core
element, I guess, is the principle
of common descent, and that is the
notion that living things are
united by a core of common
ancestry, that living things, if
you trace them back far enough,
show common ancestors that gave
rise to the many forms of life
today.

BACK TO SCENE

DR. MILLER (CONT'D)
And the third core proposition and
I think probably the simplest way
to state it is the process that
drove that change through time from
common ancestors and common descent
is driven by forces and principles
and actions that are observable in
the world today. And the key,
therefore, is that we can
understand how evolution works by
looking at what's happening in the
world around us today.

MR. WALCZAK
And is there a name for that force
that drives the change?

DR. MILLER

Actually, there are many individual forces and processes. Many of them are united under the term of 'natural selection.'

MR. WALCZAK

Now, there's a gentleman named Charles Darwin who played some role here. I was wondering, who was Charles Darwin?

At the jury box, up his sight from his notes British Writer, and Filmmaker MATTHEW CHAPMAN, 50's, handsome, and partially bald, all black suited. He's more as a retired Rock Star. At visual advice a photographic portray of Charles Darwin.

DR. MILLER

Charles Darwin was a British naturalist who was born on February 12th, 1809. If memory serves me well, that's a better-than-average day for the history of humankind because Abraham Lincoln was born on exactly the same day.

He lived in Great Britain, he studied natural history and studied theology, became a naturalist, traveled around the world on a British ship called the Beagle, made a number of very interesting observations during that trip and came back from that trip to think, to write, critique his ideas for many years, and then wrote a series of books which are the foundation of what we consider to be modern evolutionary theory.

MR. WALCZAK

And what was Darwin's contribution to evolution?

DR. MILLER

What Darwin did for the first time was to propose a plausible, workable, and ultimately testable mechanism for the processes that drove that change, and that is the mechanism of natural selection.

MR. WALCZAK

And has evolutionary theory stood still since Darwin's time or has it evolved?

DR. MILLER

It has -- nothing in science stands still, and that's true of evolutionary theory, as well. Charles Darwin lived and worked and wrote at a time when, for the most part, scientists were unaware of the existence of genes, of macromolecules, certainly of DNA, and a host of other tools and techniques by which we study biology today.

And to me, as a scientist, the most remarkable thing about evolutionary theory is that as the science of biochemistry has developed, as the science of cell biology, genetics, molecular biology, and other elements of science have developed, all of these have fit beautifully into the general framework described by Darwin almost 150 years ago.

MR. WALCZAK

I think maybe we should take a step back and maybe I can ask you to explain the whole concept of natural selection. What are we talking about here?

INT. LONDON, FREEMASONS' TAVERN - AFTERNOON (1837)

The Gentlemen's Annual Pigeon Show is attended by high class people. Between those 28 years old Charles Darwin also walks through the corridors between lines of fancy pigeons' cages. He stops before, and contemplates curious a Norwich Cropper.

DR. MILLER (V.O.)

Well, Darwin and other people were impressed at how much plant and animal breeders could influence the ultimate characteristics by selecting individuals from a breeding population, let's say of horses or rabbits that had a

DR. MILLER (V.O.)
particular characteristic the
breeder wanted and allowing them to
breed.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Dr. Miller Direct Examination continues by Mr. Walczak.

DR. MILLER
Plant breeders have done the same
thing for years. This was the
methodology of Luther Burbank when
he developed all sorts of
beneficial strains of plants.

And Darwin was enough of a
naturalist to realize that the same
process of selection actually
happens in nature...

MONTAGE OF STOCK FOOTAGE UNDER DR. MILLER: A Cheetah hunting
a Gazelle... Wildebeest crossing a river and catch by a Nile
crocodile... One Orca hunts a seal on a beach... Dragonflies
matting... An Eagle it's feeding its eaglets.

DR. MILLER (V.O.)(CONT'D)
... Darwin pointed out there's a
struggle for existence, whether we
like to admit it or not, and not
all organisms are able to pass
their genes on to the next
generation. Those that do the best
in that struggle for existence --
and it's not just a struggle to
survive, it's a struggle to find
mates, to reproduce, and to raise
those offspring.

BACK TO SCENE

DR. MILLER (CONT'D)
So in many respects things that are
very cooperative are important in
this struggle.

INT. LONDON, 36 GRT. MARLBOROUGH STREET - NIGHT (JULY, 1837)

Seated before a desk, Charles Darwin sketches on a notebook, his first-known, depiction of the evolutionary Tree of Life. Afterwards contemplates it. Finally writes above: "I think."

DR. MILLER (V.O.)

Darwin realized that those organisms that had the characteristics that suited them best in that struggle, those were the ones that were going to leave their characteristics in the next generation, and he realized that's pretty much what plant and animal breeders do, and therefore over time the average characteristics of a population could change in one direction or another and they could change quite dramatically. And that's the essential idea of natural selection.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Dr. Miller Direct Examination continues by Mr. Walczak.

MR. WALCZAK

And what Darwin didn't understand was exactly how that happened because he wasn't -- he didn't have the benefit of genetics at the time?

DR. MILLER

The entire process depends scientifically on what that mechanism of inheritance is. Darwin didn't know it. He couldn't have known it. Nobody knew it at the time. And therefore you might say that when modern genetics came into being by the rediscovering of the work of Gregor Mendel, everything in Darwin's theory was at risk, could have been overturned if genetics turned out to contradict the essential elements of evolutionary theory, but it didn't contradict them, it confirmed them in great detail.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 10/AM SESSION)

Dr. Behe Direct Examination on Qualifications, by Mr. Muise.

MR. MUISE

Now, sir, you're the author of a book called Darwin's Black Box, correct?

DR. BEHE

Yes, that's right.

MR. MUISE

And that's a book about intelligent design, is that accurate?

DR. BEHE

Yes, that's right.

MR. MUISE

How many copies has that book sold?

DR. BEHE

Somewhere over 200,000 at this point.

MR. MUISE

Has it been translated into other languages?

DR. BEHE

Yes, it's been translated, I think, into 10, a little more than 10 languages; Portuguese, Spanish, Hungarian, Dutch, Korean, Japanese, Chinese, and some other ones, too, I think.

MR. MUISE

Now you also contribute to the 1993 version of the Pandalas book, is that correct?

DR. BEHE

Yes, I did.

MR. MUISE

What was your contribution?

DR. BEHE

I wrote a portion that dealt with the blood clotting cascade. I was making a scientific argument that

DR. BEHE
the blood clotting cascade is
poorly explained by Darwinian
processes but is well explained by
design.

At visual advices *Darwin's Black Box* hardcover appears.

MR. MUISE
Is that a picture of the cover of
your book?

DR. BEHE
Yes, that's a picture of the
hardcover edition of the book.

MR. MUISE
What is the subtitle?

DR. BEHE
It's called *The Biochemical
Challenge to Evolution*.

MR. MUISE
And if you could, give us sort of
the Reader's Digest summary of
what's in this book?

DR. BEHE
Well, in brief, in Darwin's day,
the cell was a -- an obscure
entity, and people thought it was
simple, but the progress of science
has shown that it's completely
different from those initial
expectations, and that, in fact,
the cell is chock full of complex
molecular machinery, and that
aspects of this machinery look to
be what we see when we perceive
design.

They look like they are poorly
explained by Darwin's theory. And
so I proposed that a better
explanation for these aspects of
life is, in fact, intelligent
design.

MR. MUISE
Did you write this book to make a
theological or philosophical
argument?

DR. BEHE

No.

MR. MUISE

Sir, is it accurate to say that, in this book, you coined the term irreducible complexity?

DR. BEHE

Yes.

MR. MUISE

Had you used that term previous to the publication of this book?

DR. BEHE

Not in any publication that I can remember.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Mr. Walczak points to the large screen where the second page of Dr. Miller's curriculum vitae is displayed.

MR. WALCZAK

Now, the heading there says, Scientific Papers. Is there some particular meaning to that?

DR. MILLER

Yeah, most scientists would understand it right away. What this means, in more specific terms, is that these are scientific research papers that have been published in peer-reviewed scientific journals.

MR. WALCZAK

And this concept of peer review, for us non-scientists, what does that mean?

DR. MILLER

Peer review is the essence of the scientific process. It means, basically, that when you've done research that you think is sufficiently important and rigorous to merit attention and publication, you send it off to a journal. The journal will then have several of your colleagues in the field,

DR. MILLER
people who can be disinterested,
objective, and critical evaluators,
tear your paper apart, if they
possibly can, try to find flaws,
try to find problems with it. The
editor will then mediate whether
your paper is going to be rejected
or perhaps revised a little bit.

But it is the essence -- peer
review is the essence of the give
and take that goes forward in the
scientific community to try to
ensure, especially in leading
journals, that the papers that are
published are scientifically
accurate, that they meet the
standards of the scientific method,
and that they are relevant and
interesting to other scientists
working in the field.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

Dr. Padian Direct Examination by Mr. Walczak continues. Over
visual advices it's displayed Dr. Padian's curriculum vitae,
second page.

MR. WALCZAK
So you, as the author, don't know
who is reviewing your articles?

DR. PADIAN
That's correct. This is the
anonymity of peer review.
Ordinarily you don't know who these
commentators are.

MR. WALCZAK
What's the purpose of that?

DR. PADIAN
Well, it's basically so that they
can give a frank appraisal of what
you're writing without worrying
about whether they're going to
offend you and, if you're a senior
scientist, whether you're going to
get mad at them or something. I
don't know. But it's been a habit
that's always been the case in the
scientific field, certainly.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 10/AM SESSION)

Dr. Behe Direct Examination on Qualifications by Mr. Muise.
At visual advices *Darwin's Black Box* hardcover.

MR. MUISE
(pointing to the large screen)
Sir, was this book peer reviewed
before it was published?

DR. BEHE
Yes, it was.

MR. MUISE
By whom?

DR. BEHE
Well, the publisher of the book,
Free Press, sent it out to be --
sent the manuscript out to be read
prior to publication by five
scientists.

MR. MUISE
What were the backgrounds of some
of these scientists?

DR. BEHE
One is a man named Robert Shapiro,
who is a professor in the chemistry
department at New York University
and an expert in origin of life
studies. Another man was named
Michael Atchison, I believe, and
he's a biochemistry professor, I
think, in the vet school at the
University of Pennsylvania.

Another man, whose name escapes me,
I think it's Morrow, who was a
biochemistry professor at Texas
Tech University. Another
biochemist, I think, at Washington
University, but his name still
escapes me. And I have forgotten
the fifth person.

MR. MUISE
Now did you suggest any names of
reviewers for the publisher?

DR. BEHE

Yes, I suggested names, uh-huh.

MR. MUISE

From your years as a scientist, is that a standing practice?

DR. BEHE

It's pretty common, yes. A number of journals, a number of science journals require an author, when submitting a manuscript, to submit names of potential reviewers simply to help the editors select reviewers. Oftentimes, the editor is not really up-to-date with who's working in which field.

MR. MUISE

Dr. Padian, if my recollection is correct, testified on Friday that it wasn't a standard practice to identify potential reviewers for your work. How do you respond to that?

DR. BEHE

Well, Professor Padian is a paleontologist. Maybe I'm not familiar with paleontology journals. Perhaps in those, it's not common. But it certainly is common in biochemistry and molecular biology journals.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

Dr. Padian Direct Examination by Mr. Walczak continues.

MR. WALCZAK

Now, does something become science or accepted in science because it's published in a book?

DR. PADIAN

Well, it depends on the book. When books are published, they may have a seminal influence, but simply because something is published in a book doesn't mean that it's science. I think that that's a question of its reception by the scientific community.

If somebody writes a book and nobody reads it, is it influential? And the answer would be no. And if somebody writes a book but claims it's science and it's not cited by scientist, it doesn't stimulate scientific research and the ideas in it are never brought to peer review, then the answer is probably not much, because we depend on peer-review discussion of ideas and research results in order to further the progress of science.

MR. WALCZAK

So anybody can write a book and proclaim that they have a new scientific theory, but the test really is whether it's ultimately accepted by a large part of the scientific community?

DR. PADIAN

Yes. And here I think the term 'theory,' again, has to be looked at the way scientists consider it. A theory is not just something that we think of in the middle of the night after too much coffee and not enough sleep. That's an idea. And if you have a hypothesis, it's something that's a testable proposition, you can actually find some evidence that will help you to weigh it one way or the other.

A theory, in science, as maybe it's been pointed out in court, I don't know, in science means a very large body of information that's withstood a lot of testing. It probably consists of a number of different hypotheses, many different lines of evidence. And it's something that is very difficult to slay with an ugly fact, as Huxley once put it, because it's just a complex body of work that's been worked on through time.

Gravitation is a theory that's unlikely to be falsified even if we

DR. PADIAN
saw something fall up. It would
make us wonder, but we'd try to
figure out what was going on there
rather than just immediately
dismiss gravitation.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 10/AM SESSION)

Dr. Behe Direct Examination continues by Mr. Muise.

MR. MUISE
Can you give us a biochemical
example of design?

DR. BEHE
Yes, that's on the next slide.

At visual advices a diagram of the Bacterial Flagellum, from
Biochemistry, by Voet & Voet appears.

DR. BEHE (CONT'D)
I think the best, most visually
striking example of design is
something called the bacterial
flagellum. This is a figure of the
bacterial flagellum taken from a
textbook by authors named Voet and
Voet, which is widely used in
colleges and universities around
the country. The bacterial
flagellum is quite literally an
outboard motor that bacteria use to
swim. And in order to accomplish
that function, it has a number of
parts ordered to that effect.

And I should add that, although
this looks complicated, the actual
-- this is really only a little
illustration, a kind of cartoon
drawing of the flagellum. And it's
really much more complex than this.

But I think this illustration gets
across the point of the purposeful
arrangement of parts. Most people
who see this and have the function
explained to them quickly realized
that these parts are ordered for a
purpose and, therefore, bespeak
design.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 03/PM SESSION)

JULIE ANN SMITH, middle 40's, blonde, nice and slim is under Direct Examination by Mr. Harvey.

MR. HARVEY

Now, did there come a time when you learned that the Dover Area School District Board of Directors considering approval of a biology textbook?

MRS. SMITH

Yes.

MR. HARVEY

An tell us, when did you learn that?

MRS. SMITH

I learned that in June of '04.

MR. HARVEY

And what was the basis for your knowledge?

MRS. SMITH

I read it in the paper.

MR. HARVEY

Do you remember what you read?

MRS. SMITH

Yea, I read it in the York Daily Record, and, yes, I do remember.

MR. HARVEY

Please tell us what you remember learning at that time.

MRS. SMITH

That the school district was very concerned about approving a biology text that did not include creationism.

MR. HARVEY

Okay. Did there come a time when you learned that the school district board of directors had approved a biology text?

MRS. SMITH
Yes, they did in August.

MR. HARVEY
And did there come a time when you learned that the school district board of directors was considering a supplemental textbook?

MRS. SMITH
Yes.

MR. HARVEY
And what was the basis for your knowledge of that?

MRS. SMITH
I learned that from the paper, also.

MR. HARVEY
And what did you learn?

MRS. SMITH
That they were going to have Of Pandas and People in the classroom as a supplemental text to the biology book.

MR. HARVEY
And did you learn about where that book was going to come from?

MRS. SMITH
It was donated.

MR. HARVEY
Did there come a time when -- let me withdraw that. Do you believe that the board's actions in this case, the change to the biology curriculum and its other actions, have caused you harm?

MRS. SMITH
Yes, I do.

MR. HARVEY
And can you tell us what harm you believe that it has caused you?

At the jury box York Daily Record Reporter LAURI LEBO, 40's, attractive, long black hair, no makeup, seems sad...

INT. LEBO'S HOME, LIVING ROOM - MORNING (FLASHBACK)

Seated on an armchair and hidden behind it, MR. LEBO COUGHS. Lauri Lebo enters... Approaches to him so quite... and kneel beside to her father, who COUGHS again.

LAURI LEBO
Good morning, daddy.

MR. LEBO
Lauri, sweetheart! Nice to...
(cough)
What are you doing here?

LAURI LEBO
I'd come to see you, dad. How are you?

MR. LEBO
I'd have better days. What time is it? Is it too late to you?

LAURI LEBO
Don't worry, dad. I haven't to back at the court right now.

MR. LEBO
So the circus didn't have leave the town yet, right?

LAURI LEBO
Dad! I'd not come to fight!

MR. LEBO
Why it's so hard to you to accept the true?

LAURI LEBO
Dad!

Mr. Lebo grasps a hand of his daughter.

MR. LEBO
Just for a time listed to me, Lauri... As soon you believe on God's word, sweetheart, and trust on Christ as our savior, anything else just had to become worthless... No the First Amendment, no science, no debate at all... No Darwinism either... Man coming from apes and monkeys... All that have relevance is you'll going

MR. LEBO
to be rejoined with the people you
love most on earth... Do you
believe it, my child?

LAURI LEBO
I believe...

Lauri Lebo put her father's hand on her cheek.

LAURI LEBO (CONT'D)
I know that I love you, dad. Did
you think so?

MR. LEBO
Of course I'd know it, sweetheart!
How I would dare to... It's just
I'm concerned about your soul's
fate from a time...

LAURI LEBO
(frowning)
Are you serious? You didn't say
that because I support evolution,
right?

Mr. Lebo apart his hand from his daughter's face... She's so
surprised... Lauri Lebo stands up, and toward to the door...
A SLAM! Mr. Lebo COUGHS again...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 03/PM SESSION)

Julie Smith Direct Examination by Mr. Harvey continues.

MRS. SMITH
Late in '04 my daughter came home
from school, and I was discussing
kind of what was going on in the
district with her. And she looked
at me and she said, 'Well, mom,
evolution is a lie, what kind of
Christian are you, anyway', which I
found to be very upsetting.

MR. HARVEY
Did you ask her why she said that?

MRS. SMITH
Yeah, I asked her why she said
that, and she said in school what
they had been talking about or
amongst her friend and what's going

MRS. SMITH
 on. She seemed to be under the impression that as a Christian, she could not believe that evolution was a science that, you know, was true.

MR. HARVEY
 And how did that harm you?

MRS. SMITH
 Well, it goes against my beliefs. I have not problems with my faith and evolution. They're not mutually exclusive.

MR. HARVEY
 (smiling, to The Court)
 Nor further questions for this witness.

Lauri Lebo sighs, sadly...

EXT. UNDEFINED BADLANDS - MIDDAY

On cloths for the work in the field, Dr. Padian looks toward an ample digging area where college students work to unearth fossils... So far a STUDENT waves his hands over his head in order to call Dr. Padian's attention...

DR. PADIAN (V.O.)
 Despite a lot of popular impression, when we try to establish relationships among living and extinct organisms, it's not a never-ending search for direct ancestors.

Both, the Student and Dr. Padian walks alongside, talking... Meanwhile they move other students see them pass, curious...

DR. PADIAN (V.O.)(CONT'D)
 We don't go out in the fossil record, I don't go out looking for dinosaurs or whatever I'm doing in the summer in the field season looking for the ancestor of something else I know.

Surrounded by students Dr. Padian now squat over a partially unearth dinosaur fossil, which exams conscientiously... Then smiles, and see to his students...

DR. PADIAN (V.O.)(CONT'D)
 I don't expect to find a direct
 ancestor of anything. The chances
 of that are really small...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

Dr. Padian Direct Examination continues by Mr. Walczak.

DR. PADIAN
 ... But I want to show you what we
 do try to look for.

What we do is we look for shared
 characteristics. These are uniquely
 shared characteristics shared by
 certain organisms and not others.
 And by identifying these
 characteristics, we identify the
 pathway of evolution, that is, the
 order, the sequence, the genealogy
 of evolution. We want to find out
 who is most closely related to
 whom.

At the visual advices, appears a scheming diagram, entitled:
Vertebrate Cladogram.

DR. PADIAN (CONT'D)
 The next slide I have here is a
 preparation of a kind of diagram
 that we call a cladogram. And it's
 very similar to a phylogenetic
 tree, that is to say a tree of
 relationships. But the logic of
 this, I want to point out, is not
 something that's arbitrary. It's
 not simply assembled by art or by
 anything that's subjective. Rather,
 it is a diagram that reflects the
 grouping of organisms according to
 these new evolutionary features,
 these shared characteristics I
 mentioned before.

CGI UNDER DR. PADIAN: At the Vertebrate Cladogram the branch
 line from left down to up right its highlight.

DR. PADIAN (V.O.)(CONT'D)
 And if you can see the red marks
 along this -- the basic spine of
 the hat rack running from the lower

DR. PADIAN (V.O.)(CONT'D)
 left to the upper right -- these
 things always look like hat racks
 to me. I don't know what else you'd
 describe them as...

From below to above, red marks highlight one-by-one at time.
 Then, just the red mark of "Mammary gland" stands highlight,
 and above it all branches are into light blue area entitled:
 "Shared Characteristics", and below are into light red area,
 under the title: "No shared Characteristics".

DR. PADIAN (V.O.)(CONT'D)
 ... But each one of those red bars
 represents a feature that was a new
 evolutionary feature that we
 reasoned was a new evolutionary
 feature because it suddenly is
 something that now all the animals
 above it share and the animals
 below it do not share.

ZOOM IN: To the last two upper right branches and red marks.
 Under the titles: "Human" and "Gorilla", one picture of each
 species appears, into a light grey circle.

DR. PADIAN (V.O.)(CONT'D)
 So, for example, at the top here,
 the human and gorilla are united by
 a great many features, and we've
 only listed a few here because it
 would just really crowd things, and
 I think it's fairly obvious...

From below to above, the titles: "Big brain" and "Prehensile
 hand" appear alongside to the red marks.

DR. PADIAN (V.O.)(CONT'D)
 ... Things that the human and
 gorilla share are a prehensile hand
 and a large brain...

ZOOM OUT: to show the entire Vertebrate Cladogram. Under the
 titles of each species a picture appear -- a kangaroo by all
 Marsupials. Human and Gorilla still into the grey circle.

DR. PADIAN (V.O.)(CONT'D)
 ... That is not the case for the
 cow, the lion, the marsupials, and
 the other animals on this slide.

BACK TO SCENE

DR. PADIAN (CONT'D)

We reason that on the basis of this and many other shared characteristics that these features were inherited from a common ancestor. It's the best natural explanation we can come up with.

At the visual advices pass four of the slides based over the Vertebrate Cladogram. Dr. Padian points to the large screen.

DR. PADIAN (CONT'D)

... And as we go down this diagram even more, what we find is that at each juncture -- we find an increasing number of things that all these groups have.

CGI UNDER DR. PADIAN: Through Vertebrate Cladogram all these species above "4 true limbs", are into a light grey inverted triangle, with a representative picture under each title. Up to "Amnion" an embryo superimpose with the amnion highlight.

DR. PADIAN (V.O.)(CONT'D)

And so if you look at the level put here on the chart that's indicated, there's a shared feature called an amnion, which is a property of one of the membranes of the egg around the embryo, that is shared by birds, marsupials, and placental mammals...

The pictures into the grey area disappear... Pictures of the species out appear now under their titles, highlighted...

DR. PADIAN (V.O.)(CONT'D)

... but frogs and sharks and fishes don't have it...

BACK TO SCENE

DR. PADIAN (CONT'D)

And so these hierarchically nested sets of features are the logical structure by which scientists establish the relationships of life.

MR. WALCZAK

I'm sorry, Professor Padian. Matt, if you could go back just a couple of slides...

Over the large screen three slides getting back. Mr. Walczak is towards to the large screen. He points to the slide.

MR. WALCZAK (CONT'D)

... So you talked about how -- and I guess we read from left to right up the line is how you read this?

DR. PADIAN

Well, all we can say is this is a depiction of how all these organisms are related. We don't look on this as a ladder of life. We don't look at it as fish give rise to frogs which give rise to birds. It's not like that.

Mr. Walczak points to the red mark entitled: "Stirrup-shaped ear bone".

MR. WALCZAK

But, for instance, where you have the stirrup-shaped ear bone...

DR. PADIAN

Yes.

Now Mr. Walczak is pointing through the main branch into the gray circle.

MR. WALCZAK

... and you have that line, so it would be the organisms above that that share that particular feature?

DR. PADIAN

That's correct. That would be something that unites them to the exclusion of all the other critters on the slide. And that's the logic of cladograms, pure and simple.

I'd like to stress that we can use physical features like this, we can use them on fossils or on living animals, we can use them on molecules or we can use them on skeletal features or egg shell

DR. PADIAN
proteins or anything else that we
want to do. Whatever works, we use.
It's very practical.

MR. WALCZAK
And is this a -- could you say it's
a universal approach used by
scientists?

DR. PADIAN
Since the 1960s, it has become the
dominant form of understanding
relationships in the scientific
community around the world.

MR. WALCZAK
And is this method somehow
validated quantitatively or
statistically?

DR. PADIAN
Yes. And I'm glad you raised that
point, because I've only put a
couple of the features on this
chart. But, in fact, there are
hundreds that are represented in
this analysis. And it's obviously
too many for us to arrange by hand.

And so all the characters that
we're talking about and all the
animals that we're trying to
analyze, we have ways of putting
these into a data matrix and asking
the computer essentially to sort
this out for us to produce the
simplest to the most, basically,
complicated trees that you could
possibly get. And we try to start
with the simplest trees for further
work, which is a principle in
science called parsimony.

MR. WALCZAK
And do intelligent design
proponents use this type of
cladogram?

DR. PADIAN
I haven't seen them use any type of
analysis like this in any of their
works.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 07/PM SESSION)

BERTHA SPAHR, DAHS Teacher, at middle 60's, shot, wavy blond hair, with glasses. Direct Examination by THOMAS B. SCHMIDT, III, 50's, a handsome, slim, gray haired and bearded man.

MR. SCHMIDT

... Was there a time when the science department received a mural as a donation or a gift from a graduating student?

MRS. SPAHR

Yes.

MR. SCHMIDT

Can you identify the student?

MRS. SPAHR

Yes, Zach Strausbaugh.

MR. SCHMIDT

Where was the mural when you saw it last?

INT. DAHS, SCIENCE CLASSROOM 217 - MIDDAY

A RING it's hearing... Students close their books, and leave the classroom... At back Strausbaugh's mural is now alone...

MRS. SPAHR (V.O.)

The last time I saw the mural was in August of 2002. The teacher to whom the mural was placed in his room was no longer an employee of the district...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 07/PM SESSION)

Mrs. Spahr testifies under Mr. Schmidt Direct Examination.

MRS. SPAHR

... and I was going into the room to see that the new teacher who was coming had his adequate books and supplies for the coming school year. It was an in-service time.

MR. SCHMIDT

And I take it, you noticed the mural was not there?

MRS. SPAHR

On Friday, it was there. On Monday,
it was gone.

MR. SCHMIDT

What happened to the mural?

MRS. SPAHR

I immediately asked the janitorial staff that served our end of the building if they had removed it for any reason. I then called the assistant principal of the school to make him aware that the mural had disappeared, and asked him if he would investigate as to what happened to that mural.

MR. SCHMIDT

Were you ever told what happened to the mural?

MRS. SPAHR

I was told that Mr. Reeser, who was at that point the head of the building and grounds, had come in over the weekend, removed the mural from the classroom, and burned it.

MR. SCHMIDT

Did the school administration, to your knowledge, do anything about the destruction of the mural?

INT. DAHS, CORRIDOR - MORNING

Dr. RICHARD DEAN NILSEN, at middle 50's, Brunette very tall, with a great mustache and glasses, DASD Superintendent walks alongside to Mrs. Spahr... Both are going speaking...

MRS. SPAHR (V.O.)

When it had been determined that Mr. Reeser had removed the mural and burned it, I went to our then superintendent, Dr. Nilsen, and I asked him what was going to happen to the employee who had removed the property and viciously destroyed it.

Dr. Nilsen stops walking and turns to Mr. Spahr, which seems disappointing with what Dr. Nilsen says to her...

MR. SCHMIDT (V.O.)
What were you told?

MRS. SPAHR (V.O.)
I was told that it was a personnel
issue and it was none of my
concern.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 16/AM SESSION)

Mr. Buckingham Direct as on Cross by Mr. Harvey. On his suit
uses the cross-shape lapel pin again.

MR. HARVEY
Now, Mr. Buckingham, are you aware
that the theory of evolution
teaches among other things that
there is evolution within a
species?

MR. BUCKINGHAM
Yes.

MR. HARVEY
And that's not inconsistent with
your personal beliefs, is it, Mr.
Buckingham?

MR. BUCKINGHAM
No, it's not.

MR. HARVEY
And are you aware that the theory
of evolution also teaches that man
and other species evolved from a
common ancestor?

MR. BUCKINGHAM
Yes.

MR. HARVEY
And that is inconsistent with your
personal beliefs, isn't that right?

MR. BUCKINGHAM
Yes, it is.

MR. HARVEY
And you believe that evolution has
antireligious implications, don't
you?

MR. BUCKINGHAM

I don't think it's good -- I don't think there's parts of it that are good science. I won't say they're antireligious. I just think it's not good science.

MR. HARVEY

And do you know a man named Larry Reeser?

MR. BUCKINGHAM

Yes, I do.

MR. HARVEY

Mr. Reeser was somebody that you knew from your church, isn't that right?

EXT. UNDEFINED WASTELAND - NIGHT

When Mr. Reeser sights to the bonfire's opposite side, there found out Mr. Buckingham as the Man whose lips now turn into a gleefully smile...

MR. BUCKINGHAM (V.O.)

I knew who he was, but I won't say I was real close to him...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 16/AM SESSION)

Mr. Buckingham Direct as on Cross by Mr. Harvey.

MR. BUCKINGHAM

... I just knew who he was and I knew after I went onto the board that he worked for the school.

MR. HARVEY

But you knew him through your church, correct?

MR. BUCKINGHAM

That's one of the ways I know him, correct.

MR. HARVEY

Because he was a member along with you?

MR. BUCKINGHAM

Right.

MR. HARVEY

And you were concerned that the biology curriculum might be teaching the students that man descended from monkeys, isn't that right?

MR. BUCKINGHAM

I won't say I had a concern. I was told right up front that they didn't do that.

MR. HARVEY

Now, there wasn't any other aspect of the book other than evolution that you were concerned with at this time, was there?

MR. BUCKINGHAM

Well, the lack of any other theory, we were concerned with that, too.

MR. HARVEY

But the lack of any other theory in the area of evolution, isn't that right?

MR. BUCKINGHAM

I. e. intelligent design or something else, scientific to where the students would get a more well rounded education.

MR. HARVEY

And you expressed the concern that the book taught Darwin's theory of evolution and it was your view that this other scientific theory that you thought should be considered alongside of Darwin's theory of evolution, correct?

MR. BUCKINGHAM

True.

MR. HARVEY

And in fact at that board meeting you said that you believed the separation of church and state is mythical and not something you support?

MR. BUCKINGHAM

That's true.

MR. HARVEY

Now, moving on to a slightly different subject, when you lived in Dover you had the York Dispatch and the York Daily Record delivered to your home on a daily basis, isn't that right?

MR. BUCKINGHAM

My father did when he came to live with us after my mother passed away, and he liked getting both the papers, and he was with us for almost seven years before he died of lung cancer, and he liked having both the papers.

MR. HARVEY

When did your father die?

MR. BUCKINGHAM

He died May the 1st, 2003.

MR. HARVEY

And after that you still continued to receive the York Daily Record and the York Dispatch delivered to your home daily, isn't that correct?

MR. BUCKINGHAM

They came, but I didn't read them. I eventually stopped them.

MR. HARVEY

So did you read any news articles from the York Dispatch or the York Daily Record to prepare yourself to testify today?

MR. BUCKINGHAM

It wouldn't make sense to do that because I don't believe a darn thing they print.

MR. HARVEY

And so you didn't, is it your testimony that you didn't read any of the articles that were in the papers about the school board in the summer of 2004?

MR. BUCKINGHAM

No, I didn't. I would be told by people there are things in there, but my experience with the reporters were the articles almost got to be laughable. They'd come to the meetings and we talked intelligent design, and you could almost bet your house they were going to say creationism the next day, and it just got disgusting and I just wouldn't pay for it or read it anymore.

MR. HARVEY

Okay, so you didn't read any of the articles that were in the papers in the summer of 2004?

MR. BUCKINGHAM

No, I didn't.

At the visual advices a newspaper headline appears.

MR. HARVEY

Looking at this, what's been marked as P-44, at the top you see there's a heading it says 'Dover debates evolution in biology text. Book on hold because it doesn't address creationism.' Do you see that?

MR. BUCKINGHAM

Yes, I do.

MR. HARVEY

Is that a true statement?

MR. BUCKINGHAM

No.

EXT. NSES, PARKING AREA - EVENING (JUNE 14TH, 2004)

Mr. Buckingham leaves his car. TV REPORTER #2, a young and pretty woman towards to him. A CAMERAMAN follows her near.

TV REPORTER #2

Mr. Buckingham? Excuse me sir, are you Bill Buckingham?

Mr. Buckingham turns to her. The cross-shaped lapel pin it's over his suit.

MR. BUCKINGHAM
Yes, I'm. What is it?

TV REPORTER #2
Good evening, sir. I'm...

A car's ALARM sounds briefly.

TV REPORTER #2 (CONT'D)
... Channel Fox 43. May you be able
to give me a minute of your time?

MR. BUCKINGHAM
Look, miss. I'm going right now to
a meeting and I wouldn't...

TV REPORTER #2
This will take just a second, sir.
I promise.

For an instant Mr. Buckingham seems dubious. Then he nods.

MR. BUCKINGHAM
All right, go ahead.

TV REPORTER #2
Thanks, sir. It's just a question.
Why the school board refuse to
approve the biology textbook that
the teachers asking for?

MR. BUCKINGHAM
You'll see... The book that was
presented to me for biology was
laced with Darwinism from the
beginning to the end...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 16/AM SESSION)

Mr. Buckingham Direct as on Cross by Mr. Harvey continues.

MR. HARVEY
And you're sure the board members
didn't talk among themselves about
promoting creationism? Is that your
testimony?

MR. BUCKINGHAM
I'm positive.

MR. HARVEY

Now, I'd like to show you what's been identified as Exhibit P-145. You're going to need to look at the monitor.

At large screen a NEWSCLIP begins. Briefly a building and an eagle sculpture appear. Between both one placard: DOVER AREA HIGH SCHOOL. Thereafter Mr. Buckingham is at the screen.

MR. BUCKINGHAM

(at the newsclip)

The book that was presented to me for biology was laced with Darwinism from beginning to the end.

On the large screen: DAHS... A shot from Mr. Buckingham face to his cross-shape lapel pin... One road, that goes down...

TV REPORTER #2 (V.O.)

William Buckingham is head of the Curriculum Committee for the Dover School District. He is also a Board Member. He strongly believes creationism needs to be taught in the classroom.

MR. BUCKINGHAM

(at the newsclip)

My opinion that it's okay to teach Darwin, but you have to balance it with something else, such as creationism.

The NEWSCLIP stopped. Mr. Harvey turns to Mr. Buckingham.

MR. HARVEY

That was you speaking, wasn't it?

MR. BUCKINGHAM

It certainly was.

MR. HARVEY

And you were speaking to a reporter for Channel Fox 43, isn't that right?

MR. BUCKINGHAM

That's true.

MR. HARVEY
And that was in June of 2004?

MR. BUCKINGHAM
Approximately, yes.

MR. HARVEY
And in it you said, 'The book that was presented to me was laced with Darwinism from beginning to end.' Isn't that what you just said on the...

MR. BUCKINGHAM
Yes.

MR. HARVEY
Do you need to see it again?

MR. BUCKINGHAM
No.

MR. HARVEY
Now, that's basically the same statement that was reported in the newspapers, isn't it?

MR. BUCKINGHAM
Pretty close.

MR. HARVEY
And at first you told us you couldn't remember making that statement?

MR. BUCKINGHAM
At first...

MR. HARVEY
When we first talked about...

MR. BUCKINGHAM
Excuse me, when you first talked about that, I forgot about the interview.

MR. HARVEY
And...

MR. BUCKINGHAM
And what happened was when I was walking from my car to the building, here's this lady and

MR. BUCKINGHAM
 here's a cameraman, and I had on my
 mind all the newspaper articles
 saying we were talking about
 creationism, and I had it in my
 mind to make sure, make double sure
 nobody talks about creationism,
 we're talking intelligent design. I
 had it on my mind, I was like a
 deer in the headlights of a car,
 and I misspoke. Pure and simple, I
 made a human mistake.

MR. HARVEY
 Freudian slip, right, Mr.
 Buckingham?

MR. BUCKINGHAM
 I won't say a Freudian slip. I'll
 say I made a human mistake.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

Dr. Padian Direct Examination continues by Mr. Walczak.

MR. WALCZAK
 Can you talk to us about whether or
 not there is an evolutionary
 pathway, natural explanation for
 the evolution of birds?

DR. PADIAN
 You have a thing about the birds
 today. Dinosaur for lunch? Well,
 I'd be delighted to. As it turns
 out, when I went to graduate
 school...

MONTAGE UNDER DR. PADIAN: Photography of John H. Ostrom with
 a *Deinonychus antirrhopus* skeleton... A single *Protoceratops*
andrewsi, surrounded by one pack of feathered *Velociraptors*
mongoliensis at the Mongolian desert... Gliding throughout a
 forest a four-winged *Microraptor gui* land on a tree bark.

DR. PADIAN (V.O.)(CONT'D)
 ... my advisor there, John Ostrom,
 is the person who actually
 established the origin of birds
 from carnivorous dinosaurs. And
 this became very well accepted over
 the next several years. We are now
 30 years on into that, and it is

DR. PADIAN (V.O.)(CONT'D)
 one of the great achievements of
 20th Century paleontology and that
 kind of science.

BACK TO SCENE

DR. PADIAN (CONT'D)
 And I did work on this myself in
 the course of 30 years of research,
 the origin of birds and the origin
 of flight and of feathers. And so
 I'd like to show a little bit about
 what science has understood about
 this.

IMAGE: A Photography of *Archaeopteryx lithographica* Berlin's
 specimen. Superimpose two quotes from *Of Pandas and People*.

DR. PADIAN (V.O.)(CONT'D)
 The next slide, I believe, gives
 you two quotes from Pandas, along
 with a picture of Archaeopteryx,
 which is the first known bird. It's
 about 150 million years old. It
 comes from Germany. It's a
 beautiful fossil. This is the
 Berlin specimen. It's known from a
 number of specimens, seven or eight
 now.

CGI UNDER DR. PADIAN: A reconstruction of *A. lithographica's*
 plumage superimposes ghostly and highlighted on the fossil's
 photography.

DR. PADIAN (V.O.)(CONT'D)
 And as you can see, it's got
 beautiful wings, feathers, look
 very modern in their appearance...

CGI RECONSTRUCTION: of caudal vertebra superimposes.

DR. PADIAN (V.O.)(CONT'D)
 ... and yet Archaeopteryx has a
 long bony tail...

A FRAME SUPERIMPOSES, showing a CLOSE UP of *A. lithographica*
 head, with a ghostly CGI RECONSTRUCTION of critter's teeth.

DR. PADIAN (V.O.)(CONT'D)
 ... its skull still has teeth, it's
 got various configurations of bones

DR. PADIAN (V.O.)(CONT'D)
 that we don't find in birds
 today...

SKELETON RECONSTRUCTIONS: Manus and foot of *A. lithographica*
 superimpose along with their counterparts of modern birds.

DR. PADIAN (V.O.)(CONT'D)
 ... Many of the bones of its hand
 and foot are not fused like the
 bones of living birds. And so it's
 been known since its discovery in
 the 1860s, the time of the Civil
 War...

BACK TO SCENE

At visual advices, the slide of *A. lithographica* photography
 with a couple *Of Pandas and People* quotes.

DR. MILLER (CONT'D)
 ... right after Darwin published
 the Origin of Species, that
 scientists have accepted this as an
 animal that shows a lot of
 intermediate characteristics
 between birds and other animals,
 particularly certain kinds of
 reptiles.

MR. WALCZAK
 And what does Pandas say about
 this?

DR. PADIAN
 Well, Pandas says that there is no
 gradual series of fossils that lead
 from fish to amphibians or from
 reptiles to birds, rather these
 animals are fully formed.

MR. WALCZAK
 And you were quoting from Page 106
 of Pandas?

DR. PADIAN
 106, yeah. And that's one problem
 that they come up with. And a
 second problem that they talk about
 on Page 22 is that -- is their
 bemoaning the lack of fossils that
 show scales developing the property

DR. PADIAN
of feathers. They say, then we would have more to go on, but the fossil record gives no evidence for such changes.

I've picked out these two quotes because I want to emphasize that in the first case, there was very good evidence for the evolution of birds from dinosaurs when they wrote Pandas. And in the second case, they were right at the time, we did not have very many fossils that showed anything about the origin of feathers.

But in the past decade, we've had a bunch of remarkable fossils that have. And so this raises the question again of, if you tell children that you can't get there from here and then evidence is found, what are you going to do?

The next slide, I believe, talks about some of the...

At visual advices a collage of *Nature's* articles appears.

DR. PADIAN (CONT'D)
... this is really just a montage of a few, I mean, it's just a very few of the papers about feathered dinosaurs, dinosaurs that are not birds, they didn't fly, but they had various kinds of very rudimentary feathers.

These happen to be taken all from the journal *Nature*, which is one of those two magazines that I noted that all scientists are going to read every week. They're the most prestigious journals to publish in.

EXT. LIAONING FOREST - MORNING (130 MILLION YEARS AGO)

Pines and ginkgoes, growing near a vast lake, bird-like foot steps approaching to marshy shore... A shy, *Dilong paradoxus* covered by protofeathers proceed to drink into water... Then the forest sounds let it lift its head...

DR. PADIAN (V.O.)

And these have been discovered in a remarkable deposit in Northeastern China, the first one in 1996, so this was after Pandas was written. And so we wouldn't expect those authors to know anything about these discoveries, but it just goes to show that there are some really interesting things that crop up.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

Dr. Padian Direct Examination by Mr. Walczak continues.

DR. PADIAN

In the next series of slides, if I may, I'd like to show you three things going on at once, because I want to tell you that this is not simply a matter of speculation or of isolated observation and inference, that this comes from independent lines of evidence, not just the fossil record.

CGI UNDER DR. PADIAN: Appear Carnivorous Dinosaurs Cladogram (Theropoda). This is displayed vertical.

DR. PADIAN (V.O.)(CONT'D)

What I've done in this series of slides is to take, on the left, one of those hat rack cladograms that show you the relationships of organisms, and again I've turned it on its side...

The titles "Archaeopteryx" and "Modern Birds" highlight.

DR. PADIAN (V.O.)(CONT'D)

... So you can see that Archaeopteryx and modern birds are on the bottom...

The remaining titles highlight now.

DR. PADIAN (V.O.)(CONT'D)

... and that successively the groups above them are various dinosaur groups that are closely related to them.

BACK TO SCENE

DR. PADIAN (CONT'D)

I want to stress that this scheme of relationships, again, is based on dozens and dozens of characteristics that are not controversial to any extent in the scientific community, and whereas we do have uncertainties about some of the minor relationships among these animals, this is the scheme that is generally accepted by paleontologist.

CGI UNDER DR. PADIAN: Carnivorous Dinosaurs Cladogram. Over upper right, a frame superimpose with a collage: Rick Prum, Alan Brush, and Scott Williamson.

DR. PADIAN (V.O.)(CONT'D)

On the upper right, I want to show you a series of pictures that were taken from an article in Scientific American that reflects the work of Rick Prum at Yale and Alan Brush and Scott Williamson and their coauthors on the development of feathers, that is, how feathers develop in living birds.

At the bottom left, into a frame shows galleria of feathered dinosaur fossils.

DR. PADIAN (V.O.)(CONT'D)

And the reason for doing this is to couple this with a series of slides I'm going to show you on the bottom, which are of fossils of feathered dinosaurs, that is, dinosaurs that are not birds but that have feathers or some structures that are rudimentary feathers.

BACK TO SCENE

DR. PADIAN (CONT'D)

And what I want to show you is that as we proceed on the left up the tree leading to birds, we will also see that the feathers that are found in these little carnivorous

DR. PADIAN (CONT'D)

dinosaurs in the lower right are becoming more and more complex and that they are reflecting the complexification of feather structure seen in the series of diagrams in the upper right as feathers develop embryologically.

So we're actually looking at phylogeny or relationships on the left, we're looking at fossils on the right, and we're looking at developmental structures and embryology on the upper left -- upper right, I mean. Fair enough? Okay.

CGI UNDER DR. PADIAN: Carnivorous Dinosaurs Cladogram. There a red mark: "Stage 1", linked to at upper left diagram, of a hollow cylinder. At the left bottom a frame with photography of *Sinosauropterix prima* fossil.

DR. PADIAN (V.O.)(CONT'D)

Then in this stage, we see a little animal in the lower right, and that black fuzz that seems to be going along its backbone is recognized as the most basal traces of things that are going to become feathers. And these structures are hair-like. They look like the structures in the upper right. There has been observation suggesting that they are even hollow in their structure. And we find these at that point in the cladogram noted at Stage 1 on the left-hand side.

The red mark moves down: "Stage 2". There's, Diagram of Tubs of unbranched barbs, attached to a calamus. Photography of a *D. paradoxus* fossil fragment.

DR. PADIAN (V.O.)(CONT'D)

The next slide should show us Stage 2. Now we've just jumped up a notch in the cladogram. And here we're beginning to find not just these single filamentous features, but also feathers that begin to branch and begin to have different kinds of tufts involved with them. The specimen on the lower right I

DR. PADIAN (V.O.)(CONT'D)
 realize is a road-kill and it's
 difficult to interpret, but let me
 see if I can just give you a sense
 of -- there we go. Down here we
 have bones of the backbone, tail.
 And these black and white marks up
 in here are remnants of these
 branched, feathery structures that
 appear in these dinosaurs.

Red mark down: "Stage 3". *Protoarchaeopteryx robusta* feather
 photography, linked to two diagrams: Feather with barbs, and
 Planar feather with unbranched barbs.

DR. PADIAN (V.O.)(CONT'D)
 The next slide shows a further
 complexification of feathers in the
 next step up on the cladogram
 toward birds in which we have a
 gaggle of feathers there in the
 center. These are just a group of
 feathers that have, as you might be
 able to see, a central sort of
 stalk where you can see all these
 things gather in the middle. You
 can see this happening in the early
 development of a feather in the
 upper right. And then you see the
 feather differentiating into veins
 along a central stalk, just like
 you see in the next stage of the
 development of a feather in a bird
 that lives today.

Red mark down: "Stage 4". Diagram of: Dosed pennaceous vane.
Caudipteryx zoui feather fossil photography.

DR. PADIAN (V.O.)(CONT'D)
 The next slide, again, at this
 stage we also see another kind of
 feather that is a feather that is
 organized very well into veins on
 each side. And these veins are very
 well organized along the central
 stalk. In this fossil I've shown
 you in the middle, you can see
 perhaps faintly the outline of
 these black and white structures
 radiating off along this white
 stripe, which is the central axis
 of the feathers.

DR. PADIAN (V.O.)(CONT'D)

And so these are several feathers from the tail of one of these animals that are just bunched up right next to each other in one of these fossils. And, again, this is mirrored also in the progress of development from the feather from a single follicle bud up to a complete feather that we'd see today.

Red mark down: "Stage 5". Diagram of Dosed asymmetrical vane linked to a *M. gui* feather fossil photography.

DR. PADIAN (V.O.)(CONT'D)

The final stages I want to show you as we get closer to birds is a feather in which the veins are asymmetrical, that is, one side of the feather is bigger and the other side is smaller. And this is seen in birds today, but it's also seen in some of the other carnivorous dinosaurs that are close to birds, but not in all of them.

BACK TO SCENE

DR. PADIAN (CONT'D)

So, again, what we're seeing is as we move up the cladogram towards birds, we go from the simplest filamentous feathers up to more complex structures that are then gathered and around a central stalk that produce veins. These are interlocked by barbs and barbules, and they eventually become the aerodynamic structures that birds use in their wings.

But I'd like to point out, if I can, in the next slide...

One slide entitled: What Good is Half a Wing? appears on the visual advices.

DR. PADIAN (CONT'D)

... that the obvious question is, what are they doing with these feathers before they're flying? And

DR. PADIAN (CONT'D)
the evidence that we found in the fossil record in the last ten years indicates beyond any reasonable question that feathers did not evolve for flight. Flight was an afterthought for birds. They somehow acquired that adaptation later on.

EXT. LIAONING FOREST - NIGHT (130 MILLION YEARS AGO)

LIGHTNING! THUNDERS! STRONG RAIN...! One couple of *S. prima* safeguards under a tree's foliage. They use plumage in order to keep warming.

DR. PADIAN (V.O.)
What do we know about those first little hairy feathers that we're looking at? Well, one thing we know is, if you put a fur coat on somebody, they're going to stay warmer. And this little covering of dense fibers is going to give you insulation. That tells us something about the metabolic status of these animals even then.

EXT. LIAONING FOREST - MIDDAY (127 MILLION YEARS AGO)

SPLIT SCREEN: Between one *C. zoui* feather fossil photography and a male *C. zoui*, that engages into bizarre mate-selection ritual before a female of his species... He's displaying its colored tail feathers.

DR. PADIAN (V.O.)
Another thing is, you may have noticed some dark and light color patterns on those feathers. The fossils preserve this. What good are color patterns? Well, on these animals, they could serve as camouflage, as display, or even to help them recognize species.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

Dr. Padian Direct Examination continues by Mr. Walczak. Over the large screen the slide: What Good is Half a Wing?

DR. PADIAN

I'm going to show you another function in a second that indicates that these animals were also using the feathers to shelter the eggs as they brooded their young. And these are all examples of what we call exaptation and evolution. And by that I mean that a structure evolves for one purpose, but it's selected, in turn, to acquire a second purpose, without, of course, losing the first one instantly. It will retain the first one.

And as it develops the second one, because it has the ecological opportunity or the pressure to do so, that second structure, that second function, may become more and more important to the structure, it may be selected to change more to accommodate this new function. And this is how exaptation works to change one kind of function into another through evolution.

MR. WALCZAK

(pointing to the large screen)
You have at the top there, What good is a half wing? What do you mean by that?

DR. PADIAN

Well, if you just -- this is the question that has always been asked of evolutionists. St. George Mivart asked this of Darwin in the 1870s, what good is half a wing?

And the answer is, well, if you don't think of it as something you have to use to fly with, you can find out other functions if you just let the evidence tell you. And these are some of the lines of evidence. I will briefly show, if I

DR. PADIAN
 may, a couple of these other
 functions.

At visual advices a Cladogram of Archosaurs manus, entitled:
Additional Evidence appears.

DR. PADIAN (CONT'D)
 The next slide provides some
 additional evidence of the other
 problem we talked about, not so
 much feathers, but the question of
 the evolution of birds...

CGI UNDER DR. PADIAN: Archosaurs manus Cladogram: Additional
 Evidence.

DR. PADIAN (V.O.)(CONT'D)
 ... We have tremendous evidence on
 this, but one line of evidence
 comes from the hand itself...

The crocodile manus increases and stand out into a frame.

DR. PADIAN (V.O.)(CONT'D)
 ... If you look at the hand of
 crocodiles, they have got five
 fingers...

The crocodile manus back at the cladogram. The *Archaeopteryx*
 manus increases and stand out into a frame.

DR. PADIAN (V.O.)(CONT'D)
 ... If you go all the way over to
 the left, you see *Archaeopteryx*,
 the first bird, that has only
 three.

BACK TO SCENE

DR. PADIAN (CONT'D)
 Well, again, here's a cladogram of
 relationship diagrams of how these
 organisms are related based on
 many, many characteristics...

CGI UNDER DR. PADIAN: Archosaurs manus Cladogram: Additional
 Evidence. Three manus at the right of crocodile increase and
 stand out into a frame. Fourth and fifth digit highlights.

DR. PADIAN (V.O.)(CONT'D)
 ... And as we move up from the crocodiles through the various kinds of dinosaurs, we see that the fourth and the fifth finger, first the fifth and then the fourth, become reduced and finally lost...

Increased manus back to the cladogram. Then three last manus at right increase, and stand out. Second digit highlights.

DR. PADIAN (V.O.)(CONT'D)
 ... until, when you get up to animals like Allosaurus, Deinonychus, and Archaeopteryx, they have only three fingers, and those are the first three fingers. The second finger is the longest, and you can see that through time, these fingers and the hand bones become even longer and more gracile.

BACK TO SCENE

DR. PADIAN (CONT'D)
 Those three fingers that you see in Archaeopteryx at the end are still separate fingers, but in birds today, they're fused up. You would know them better as the pointy part of the wing in the Kentucky fried chicken.

So if you were to dissect your Kentucky fried chicken, which I don't recommend, but I can tell you about turkeys and Thanksgiving, which is a lot of fun...

EXT. UNDEFINED BACKYARD - MIDDAY

On a large table are seated Dr. Padian and college students, celebrating Thanksgiving... Dr. Padian finishes removing the flesh of one *Meleagris gallopavo* (domesticated turkey) wing. Then show it to a CUTE STUDENT besides him. There's possible appreciate turkey's forelimb skeletal structure.

DR. PADIAN (V.O.)
 ... you will find that you can get to the individual hand bones, we

DR. PADIAN (V.O.)
 can watch the bird develop, and
 these are individual bones that
 later become fused. And this is
 because the bird is no longer using
 its hand for anything except
 flight...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

Dr. Padian Direct Examination by Mr. Walczak continues.

DR. PADIAN (CONT'D)
 ... It's not using its fingers to
 pick up things or claw or scratch
 anymore.

And early in the evolution of
 birds, when they dedicated
 themselves to flying with the four
 limbs and very little else, there
 was no further need to use these
 fingers for anything, and it made
 more sense to fuse them into
 position rather than use muscles to
 hold them there. And this is the
 evidence that we have of how these
 organs evolve.

INT. AMNH, HALL OF SAURISCHIAN DINOSAURS - DAY

A young couple visits the American Museum of Natural History
 (AMNH) with their little daughter... The family goes through
 the hall admiring the collection... The little girl apart of
 them, and approaches to the remains of a *Citipati osmolskae*.
 (IGM 100/979 -- nicknamed "Big Mamma".)

DR. PADIAN (V.O.)
 This is a dinosaur, an
 extraordinary ostrich dinosaur
 relative. It's an Oviraptor
 dinosaur. The name isn't important.
 But one thing you can see about
 this specimen, which is very
 beautiful, it comes from the
 Cretaceous of Mongolia...

CGI RECONSTRUCTIONS: of the right forelimb bones superimpose
 ghostly, over the humerus, radius and ulna, metacarpals, and
 phalanges successively.

DR. PADIAN (V.O.)(CONT'D)
 is that here is the right arm, here
 is the humerus, the bones of the
 forearm, and three clawed fingers
 of the right hand...

CGI RECONSTRUCTION: of remaining left scapula, also those of
 the left forelimb metacarpals and phalanges.

DR. PADIAN (V.O.)(CONT'D)
 ... Moving over to the other side,
 the arm comes out here, and here
 are the three clawed fingers of the
 left hand.

CGI RECONSTRUCTION: Of oval white objects below to the right
 forelimb as eggs. Thereafter, left hind limb tibia, also the
 metacarpals and phalanges reconstructions appear.

DR. PADIAN (V.O.)(CONT'D)
 These white objects you see in this
 specimen are eggs. And here is the
 hind limb and the foot on the left
 side...

CGI RECONSTRUCTION: Of those right hind limb bones tibia and
 phalanges superimpose. The ischium, and some ribs thereafter
 appear superimposed.

DR. PADIAN (V.O.)(CONT'D)
 ... Here is the hind limb and foot
 of the right side. Here is part of
 the tail. And the animal's rib cage
 is in here. There are more eggs
 underneath this animal. This
 critter was brooding its eggs in
 exactly the same position that hens
 brood their eggs today.

EXT. GOBI DESERT - MIDDAY (81 MILLION YEARS AGO)

Nesting at the sand, shelter nearing to an isolate shrub one
C. osmolskae GROWLS excited when its mate approaches.

DR. PADIAN (V.O.)
 Furthermore -- well, one thing to
 draw from this is that some
 behaviors that we associate with
 birds did not evolve with birds,
 they actually apparently were
 already present in the dinosaurian
 relatives of birds, and they simply

DR. PADIAN (V.O.)
were passed on to birds as they
evolved.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

Dr. Padian Direct Examination continues by Mr. Walczak.

DR. PADIAN
But the other thing this shows is a
funny thing...

CGI UNDER DR. PADIAN: Skeletal reconstruction: *C. osmolskae*,
lateral view brooding over a nest of sand.

DR. PADIAN (V.O.)(CONT'D)
... in the fossil relatives of this
particular dinosaur, not this
specimen because they aren't
preserved, but we have feathers in
other Oviraptor dinosaurs that come
off the fingers that are long and
gracile...

The *C. osmolskae* skeleton and nest rotate at the X axis. Now
is viewing from the top.

DR. PADIAN (V.O.)(CONT'D)
... The fingers, you'll notice, are
spread so as to cover the eggs...

RECONSTRUCTION: of arms' feathers appears at the skeleton.

DR. PADIAN (V.O.)(CONT'D)
... And if this particular dinosaur
had preserved its feathers, it
would have been using them to
shelter the eggs as it brooded
them...

BACK TO SCENE

DR. PADIAN (V.O.)(CONT'D)
... This is evidence of behavior,
not just of structure, that we can
find very anciently in the fossil
record.

EXT. LIAONING FOREST - EVENING (130 MILLION YEARS AGO)

Shelter at a fallen trunk a juvenile *Mei long* it's sleeping. The environment seems cloudy and ominous.

DR. PADIAN (V.O.)

This is a dinosaur, not a bird. He looks a lot like a bird, but he's in a sleeping position.

The ground trembling... Fissures appear, and poisonous gases emerge from the earth... A more close view of *M. long*...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

CGI UNDER DR. PADIAN: As a MATCH CUT skeletal reconstruction of *M. long* appear over BLACK b.g., successively the cranium, left forelimb bones, and caudal vertebra highlight.

DR. PADIAN (V.O.)(CONT'D)

And what is unusual about this critter is that here's its skull here with its big eye right here, and here's its little beak and its tail, bones like this. Up here are the arm bones of the left arm. And what this animal is doing -- his tail end is back this way and his front end is really to the left, but he's tucked his head and neck underneath his left arm...

EXT. LIAONING FOREST - EVENING (130 MILLION YEARS AGO)

Volcanic ashes raining from the sky... Suddenly, a couple of bizarre feathered *Sinovenator changii* pass jumping the trunk where *M. long* sheltered... Which it's already DEAD!

DR. PADIAN (V.O.)

... In other words, he's sleeping like a bird does. This is not a bird. This is a little carnivorous dinosaur that's close to birds.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/AM SESSION)

At the visual advices there's the photography of the *M. long* fossil, alongside to a Nature's page article regarding this. Dr. Padian Direct Examination by Mr. Walczak continues.

DR. PADIAN

So, again, there is remarkable evidence that not just the structures of birds, but the behaviors of birds can sometimes be found in the fossil record and they precede birds. They actually are more general. They apply to the fossil record of many dinosaurs, as well.

MR. WALCZAK

And, again, this is all based on peer-reviewed research?

DR. PADIAN

The paper you see there is from Nature.

MR. WALCZAK

And so do scientists today understand that, in fact, birds evolved and were not created abruptly?

DR. PADIAN

In fact, that they evolved from small carnivorous dinosaurs sometime in the middle or late Jurassic period about 150 million years ago.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 11/PM SESSION)

Dr. Behe Cross Examination by Mr. Rothschild. Over the large screen: AAAS Board Resolution on Intelligent Design. Reading of highlighted paragraphs, by Mr. Rothschild.

MR. ROTHSCHILD

And in the second whereas clause it says, 'The ID movement has failed to offer credible scientific evidence to support their claim that ID undermines the current scientifically accepted theory of evolution.' And 'The ID movement has not proposed a scientific means of testing its claims. Therefore be it resolved, that the lack of scientific warrant for so-called intelligent design theory makes it improper to include as a part of science education.'

That's the association's position, correct? The American Academy of Scientists -- American Association of Scientists.

DR. BEHE

That's what it says. And if I might comment, this is a political document. What scientific paper do you know of that says whereas, whereas, whereas, therefore be it resolved? This is a political document. There are no citations here. There's no marshaling of evidence. As I've tried to show in my testimony yesterday and today, if you actually look at these things, we have marshaled evidence, we have proposed means by way our claims can be tested.

Like I said in my testimony earlier, not every statement by a scientist is a scientific statement. And that goes also for scientific organizations, not every statement issued by a scientific organization, even on science, is a scientific statement.

This is not supported by evidence. This is not worth one paper in the literature. This is a political document.

MR. ROTHSCHILD

You're not aware of any major scientific organization that has endorsed the science of intelligent design or the teaching of intelligent design, are you?

DR. BEHE

I'm unaware of any major scientific organization that goes into the business of endorsing scientific theories. When they get stirred up apparently they will oppose something. But, you know, no other scientific theory, you know, after a while is put on a list of the approved -- of approved sciences by any scientific organization that I'm aware of.

MR. ROTHSCHILD

In fact, this isn't just a big scientific organization's bureaucracy that's taken this position, your own university department has taken a position about intelligent design, hasn't it?

DR. BEHE

Yes, they certainly have.

MR. ROTHSCHILD

If you could pull up exhibit 742, Matt, and if you could highlight it.

MATTHEW McELVENNY, Plaintiffs Counsel AV Assistant displayed at visual advices highlighted both paragraphs of: Department Position on Evolution and "Intelligent Design".

MR. ROTHSCHILD (CONT'D)

This is a statement that was issued by the Lehigh Department of Biological Sciences?

DR. BEHE

Yes, it is.

Mr. Rothschild approaches to the screen in order to read it. When he begins, Dr. Behe puts his hands behind his head, and lean back at his chair. Also adopt a defiantly smile.

MR. ROTHSCHILD

And what it says is, 'The faculty in the Department of Biological Sciences is committed to the highest standards of scientific integrity and academic function. This commitment carries with it unwavering support for academic freedom and the free exchange of ideas. It also demands the utmost respect for the scientific method, integrity in the conduct of research, and the recognition that the validity of any scientific model comes only as a result of rational hypothesis testing, sound experimentation, and findings that can be replicated by others.'

'The department faculty, then, are unequivocal in their support of

MR. ROTHSCHILD
 evolutionary theory, that has its
 roots in the seminal work of
 Charles Darwin and has been
 supported by findings accumulated
 over 140 years. The sole dissenter
 from this position'

(turn to Dr. Behe, smiling
 sarcastically)

-- and I think they're just
 referring to your department at
 this point -- 'Professor Michael
 Behe, is a well-known proponent of
 intelligent design. While we
 respect Professor Behe's right to
 express his views, they are his
 alone and are in no way endorsed by
 the department. It is our
 collective position that
 intelligent design has no basis in
 science, has not been tested
 experimentally, and should not be
 regarded as scientific.'

So you've not even been able to
 convince your colleagues, any of
 them, Professor Behe?

Now Dr. Behe is normally seated.

DR. BEHE

They all endorse this statement,
 but I would like to point out, if
 you would, the entire first
 paragraph is something that I would
 completely agree with: Committed to
 the highest standards of scientific
 integrity and academic function;
 unwavering support for academic
 freedom; the utmost respect for the
 scientific method; integrity in the
 conduct of research, and so on.

That's a wonderful statement. I
 agree with it completely. What does
 it have to do with the arguments
 that I make?

The department faculty is
 unequivocal in their support of
 evolutionary theory. What does that
 mean? To commit one's self to a
 theory, to swear allegiance to a
 theory. That's not scientific.

If they could point to a paper in the literature, something that, say, Russell Doolittle overlooked which explains how complex molecular systems could be put together by gradual means, by unintelligent means, then I would be happy to agree that Darwinian evolution could explain this. But one can't issue statements and say that a theory is correct if one does not have the papers to back it up.

And you'll notice that even in this statement, you see no citations, no citations to explanations for these complex molecular systems. And in the absence of that, while that's fine for them to express their views, it doesn't mean -- it doesn't carry the weight of a single journal paper.

MR. ROTHSCHILD

Journal papers are valuable.

DR. BEHE

They sure are.

MR. ROTHSCHILD

And they're just referring to the findings accumulated over 140 years, correct?

DR. BEHE

Well, as I tried to make clear in my testimony, findings accumulated over 140 years that support the contention that Darwinian processes could explain complex molecular systems total a number of zero.

MR. ROTHSCHILD

Zero papers, Professor Behe?

DR. BEHE

That's correct.

EXT. FEDERAL BUILDING, LOW FLOOR FRONT - AFTERNOON

The Media still crown around as the first trial's day. Then, all approach toward Mr. Thompson, when he leaves the Federal Building. Now he's presiding a street press conference.

FEMALE NEWSCASTER (V.O.)

After few weeks that the Dover's trial begins at courtroom the national debate about the origin of life continues.

Meanwhile Mr. Thompson is speaking; Mr. Chapman arrives, and stands up slightly apart and besides to him.

MR. THOMPSON

There are two Americas today, one that's still very religiously based, and another that has no foundation, where everything is relative, where everything goes. My aims are to put society back on track, and that track is there for us, laid down by God. We do this, all of the attorneys I'm working with do this, because of our religious commitment.

Cameras are shooting... Mr. Thompson sights to the Reporters that are looking for a question. Then turn where Mr. Chapman is, looking to him, curious.

MR. CHAPMAN

(with British accent)

Do you believe that we and other primates descended from common ancestors?

MR. THOMPSON

Do I think I evolved from an ape?
No, I don't believe my ancestor was a monkey.

(to the Reporters)

Now, if you excuse me...

Mr. Thompson walks, trying to apart from reporters... Almost all of them follow him, except one, who with a Cameraman now toward to Mr. Chapman... Behind to him an attractive blonde, PATRICIA PRICEHOUSE, Ph.D., holds a panda puppet which wears a square academic cap, PROF. STEVE STEVE.

TV REPORTER #3
May be able to get me your name,
sir?

MR. CHAPMAN
My name is Matthew Chapman.

TV REPORTER #3
And what's your relationship with
Charles Darwin?

MR. CHAPMAN
He is my great-great grandparent.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 05/PM SESSION)

JOHN F. HAUGHT, PH.D., 50's, grey haired with glasses. Under
Cross Examination by Mr. Thompson.

MR. THOMPSON
In fact, this whole idea of man
sharing common ancestors is up for
debate. Is that correct?

DR. HAUGHT
I don't think so, no. The record of
hominid evolution is among the
strongest that we have from what
I've been told by evolutionary
biologists.

MR. THOMPSON
Have we ever found or identified
our common ancestor?

DR. HAUGHT
Not precisely.

MR. THOMPSON
We don't even have an idea who that
common ancestor would be, do we?

DR. HAUGHT
I think we're getting closer and
closer by studying genetics,
especially, to being able to make
more and more reasonable
inferences.

MR. THOMPSON
Well, genetics is not going to tell
us who the common ancestor is, is
it?

DR. HAUGHT

Genetics is telling us more and more about the story of evolution because as we read the human genome, we can see almost chapter by chapter how evolution came about. Genetics is now one of the strongest -- you might say strongest pieces of evidence for evolutionary science.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Dr. Miller Direct Examination by Mr. Walczak continues.

MR. WALCZAK

Could you give us another example?

DR. MILLER

Sure, I'm very happy to. The next slide, this is another test of the evolutionary hypothesis of common ancestry.

At the large screen appears one slide: Chromosome Numbers in the Great Apes (Hominidae).

DR. MILLER (CONT'D)

We have, as I'm sure most people know, 46 chromosomes in our human cells. That means we have 23 pairs of chromosomes because you get 23 from mom and you get 23 from dad, so we've all got 46 total. We've got 23 pairs.

Now, the curious thing about the great apes is they have more. They have, as you can see from the slide, 48 chromosomes, which means they have 24 pairs. Now, what that means, Mr. Walczak, is that you and I, in a sense, are missing a chromosome, we're missing a pair of chromosomes. And the question is, if evolution is right about this common ancestry idea, where did the chromosome go?

Now, there's no possibility that that common ancestry which would have had 48 chromosomes because the

DR. MILLER (CONT'D)

other three species have 48, there's no possibility the chromosome could have just got lost or thrown away. Chromosome has so much genetic information on it that the loss of a whole chromosome would probably be fatal. So that's not a hypothesis.

Therefore, evolution makes a testable prediction, and that is, somewhere in the human genome we've got to be able to find a human chromosome that actually shows the point at which two of these common ancestors were pasted together. We ought to be able to find a piece of Scotch tape holding together two chromosomes so that our 24 pairs -- one of them was pasted together to form just 23. And if we can't find that, then the hypothesis of common ancestry is wrong and evolution is mistaken.

CGI UNDER DR. MILLER: Representation of chromosome as a bar. Both extremes are marked as BLUE segments, and in the middle a segment marked in RED.

DR. MILLER (V.O.)

Now, the prediction is even better than that. And the reason for that is chromosomes themselves have little genetic markers in their middles and on their ends...

Both BLUE segments are highlighted.

DR. MILLER (V.O.)(CONT'D)

... They have DNA sequences, which I've highlighted in here, called telomeres that exist on the edges of the chromosomes.

The RED segment it's highlighted.

DR. MILLER (V.O.)(CONT'D)

Then they have special DNA sequences at the center called centromeres, which I've highlighted in red...

BACK TO SCENE

DR. MILLER (CONT'D)
 ... Centromeres are really important because that's where the chromosomes are separated when a cell divides. If you don't have a centromere, you're in really big trouble.

CGI UNDER DR. MILLER: Two chromosomes, toward to each other. Both FUSED by one EXTREME, which highlight.

DR. MILLER (V.O.)(CONT'D)
 Now, if one of our chromosomes, as evolution predicts, really was formed by the fusion of two chromosomes, what we should find is in that human chromosome...

At the new chromosome, the BLUE segments at the extremes now highlight. Thereafter does the ONE (fused) at the middle.

DR. MILLER (V.O.)(CONT'D)
 ... we should find those telomere sequences which belong at the ends, but we should find them in the middle. Sort of like the seam at which you've glued two things together, it should still be there.

The upper RED segment becomes clearer...

DR. MILLER (V.O.)(CONT'D)
 And we should also find that there are two centromeres, one of which has, perhaps, been inactivated in order to make it convenient to separate this when a cell divides...

BACK TO SCENE

DR. MILLER (CONT'D)
 ... That's a prediction. And if we can't find it in our genome, then evolution is in trouble.

Next slide...

The first page from The Generation and Annotation of the DNA Sequences of Human Chromosomes 2 and 4, of *Nature* appears at the visual advices.

DR. MILLER (CONT'D)

... Well, lo and behold, the answer is in Chromosome Number 2. This is a paper that -- this is a facsimile of a paper that was published in the British journal Nature in 2004. It's a multi-authored paper. The first author is Hillier, and other authors are listed as et al. And it's entitled, The Generation and Annotation of the DNA Sequences of Human Chromosomes 2 and 4.

And what this paper shows very clearly is that all of the marks of the fusion of those chromosomes predicted by common descent and evolution, all those marks are present on human Chromosome Number 2.

Would you advance the slide...

The page 6 of the same article it's at the visual advices.

DR. MILLER (CONT'D)

... And I put this up to remind the Court of what that prediction is. We should find telomeres at the fusion point of one of our chromosomes, we should have an inactivated centromere and we should have another one that still works.

And you'll note -- this is some scientific jargon from the paper, but I will read part of it. Quote, Chromosome 2 is unique to the human lineage of evolution having emerged as a result of head-to-head fusion of two acrocentric chromosomes that remain separate in other primates. The precise fusion site has been located, the reference then says exactly there, where our analysis confirmed the presence of multiple telomere, subtelomeric duplications. So those are right there.

And then, secondly, during the formation of human chromosome 2,

DR. MILLER (CONT'D)

one of the two centromeres became inactivated, and the exact point of that inactivation is pointed out, and the chromosome that is inactivated in us -- excuse me, the centromere that is inactivated in us turns out to correspond to primate Chromosome Number 13.

So the case is closed in a most beautiful way, and that is, the prediction of evolution of common ancestry is fulfilled by that led-pipe evidence that you see here in terms of tying everything together, that our chromosome formed by the fusion from our common ancestor is Chromosome Number 2. Evolution has made a testable prediction and has passed.

MR. WALCZAK

So what you're testifying here is that modern genetics and molecular biology actually support evolutionary theory?

DR. MILLER

They support it in great detail. And the closer that we can get to looking at the details of the human genome, the more powerful the evidence has become.

MR. WALCZAK

Now, is there research ongoing in this area, molecular biology and genetics?

DR. MILLER

Oh, absolutely. In fact, it's moving so fast that it's difficult to keep up with it.

MR. WALCZAK

And, in fact, is there a very recent publication, peer-reviewed publication, that bears on this issue of common descent?

DR. MILLER

Well, the answer to that is, there's more than one. And the one that comes to my mind right away is an issue earlier this month of the scientific journal *Nature*, which might be the most prestigious scientific journal in the world, which focused on seven or eight papers describing the complete genome analysis of the genome of the chimpanzee.

MR. WALCZAK

And if I could direct your attention to what's been marked as Plaintiffs' Exhibit 643, is this the cover of the publication to which you refer?

At visual advices a *Nature's* cover: The Chimpanzee Genome... September 1st, 2005.

DR. MILLER

Yes, that is the cover of the September 1st, 2005 issue of the scientific journal *Nature*. And you can see that the cover story is the chimpanzee genome.

MR. WALCZAK

Matt, if you could turn to -- I believe it's Page 69. Is this the article to which you are referring?

At visual advices: Initial Sequence of the Chimpanzee Genome and Comparison with the Human Genome, from *Nature*.

DR. MILLER

Well, it's one of about seven or eight articles on the genome and its implications to which I refer. But this is the prime article that presents the chimpanzee sequence and points out some of the highlights of the sequence. So if one article in this large journal was said to be the cover story, the key article, this is it.

MR. WALCZAK

And why is this important?

DR. MILLER

It's important because it introduces an enormous data set, the chimpanzee genome, that we simply didn't have before. And the title of the article I think actually tells you what you're going to find in here.

Initial sequence, because we change these things as we get better data, initial sequence of the chimpanzee genome and in comparison with the human genome. These organisms, as the earlier demonstratives that I presented to the Court show, clearly show a common ancestry with us, but as any observation will tell you, they're not like us. So understanding how we are similar and how we are different from these organisms is a really important and exciting problem in biology.

MR. WALCZAK

Matt, could you highlight the first sentence. This is the first sentence of the article. Could I ask you to read this, Dr. Miller?

DR. MILLER

Of course. And this is the introductory sentence to the article, and it reads, quote, More than a century ago Darwin and Huxley posited that humans share recent common ancestors with the African great apes. Modern molecular studies have spectacularly confirmed this prediction and have refined the relationships showing that the common chimpanzee, Pan troglodytes, and Bonobo, Pan paniscus or pygmy chimpanzee, are our closest living evolutionary relatives.

MR. WALCZAK

It says 'spectacularly confirmed'. Is that something you routinely find in scientific journals?

DR. MILLER

I think you could read the journal Nature for several years and not see another use of the word 'spectacular'. It tells you that the authors of this paper are really excited about this data. And, to be perfectly honest, the entire scientific community was excited by the chance to compare this data with our own genome, and that warrants the use of the word 'spectacular'.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 05/PM SESSION)

Dr. Haught Cross Examination by Mr. Thompson continues.

MR. THOMPSON

Well, let me give you an analogy. I have some nuts and bolts. I take some nuts and bolts and make a car.

DR. HAUGHT

Yes.

MR. THOMPSON

Okay? That's a car. Then I take some other nuts and bolts and make an airplane. They have the same parts, but does that mean that the airplane came out of the car?

DR. HAUGHT

No.

MR. THOMPSON

So that if there is a God, that God could use the same kind of genetic material making, you know, a monkey or an ape and making a human being. Isn't that a possibility?

DR. HAUGHT

It's a possibility. And God could also make a universe that makes itself.

MR. THOMPSON

Correct. So that this idea that it's already definitely set as a scientific fact that we came from

MR. THOMPSON
the same ancestors as the monkey or
ape is conjecture at this point?

DR. HAUGHT
I wouldn't say -- I'm not a
scientist, so I'm, perhaps,
speaking out of turn here. But from
what I've read, 'conjecture' would
be certainly the wrong term.

EXT. FEDERAL BUILDING, LOW FLOOR FRONT - AFTERNOON

Mr. Chapman interview continues... Behind him Dr. Pricehouse
keeps Prof. Steve Steve into Cameraman's POV.

TV REPORTER #3
What's the purpose that you're
here?

MR. CHAPMAN
I am here as a writer. I'm
commissioned to write an article
about the trial for Harper's
Magazine.

TV REPORTER #3
At the time, what're your
impressions about the evolution
debate in America, sir?

MR. CHAPMAN
Before I move to the United States,
in 1982, I was not listened that
evolution still being debated so
vividly. In Europe, people accept
evolution. This is somehow a
continuation of the Scopes trial.

TV REPORTER #3
Can you give us a comparative
between both trials?

MR. CHAPMAN
This is more intense and more
extreme than the Scopes trial was.
In a way less polite, less
gentlemanly. The hatred to Darwin
is more extreme here than it was in
Tennessee. I have meet preachers
here who sort of hold him
responsible for Hitler, Stalin...

MR. CHAPMAN

He is the villain, he's the guy who started it all. I think it's ridiculous. As a writer, I think he makes a lousy villain.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 12/AM SESSION)

Dr. Behe Cross Examination continues by Mr. Rothschild.

MR. ROTHSCHILD

Okay. Now you stated on Monday that Darwin's Black Box was also peer reviewed, right?

DR. BEHE

That's correct.

MR. ROTHSCHILD

You would agree that peer review for a book published in the Trade Press is not as rigorous as the peer review process for the leading scientific journals, would you?

DR. BEHE

No, I would not agree with that. The review process that the book went through is analogous to peer review in the literature, because the manuscript was sent out to scientists for their careful reading.

Furthermore, the book was sent out to more scientists than typically review a manuscript. In the typical case, a manuscript that's going to -- that is submitted for a publication in a scientific journal is reviewed just by two reviewers. My book was sent out to five reviewers.

Furthermore, they read it more carefully than most scientists read typical manuscripts that they get to review because they realized that this was a controversial topic. So I think, in fact, my book received much more scrutiny and much more review before publication

DR. BEHE
than the great majority of
scientific journal articles.

MR. ROTHSCHILD
Now you selected some of your peer
reviewers?

DR. BEHE
No, I did not. I gave my editor at
the Free Press suggested names, and
he contacted them. Some of them
agreed to review. Some did not.

MR. ROTHSCHILD
And one of the peer reviewers you
mentioned yesterday was a gentleman
named Michael Atchison?

DR. BEHE
Yes, I think that's correct.

MR. ROTHSCHILD
I think you described him as a
biochemist at the Veterinary School
at the University of Pennsylvania?

DR. BEHE
I believe so, yes.

MR. ROTHSCHILD
He was not one of the names you
suggested, correct?

DR. BEHE
That is correct.

MR. ROTHSCHILD
In fact, he was selected because he
was an instructor of your editor's
wife?

DR. BEHE
That's correct. My editor knew one
biochemistry professor, so he
asked, through his wife, and so he
asked him to take a look at it as
well.

MR. ROTHSCHILD
And you found out his name later,
correct?

DR. BEHE
That's right, yes.

MR. ROTHSCHILD
From your editor?

DR. BEHE
No. I think actually Professor
Atchison himself contacted me later
after the book came out.

MR. ROTHSCHILD
May I approach the witness?

THE COURT
You may.

Mr. Rothschild carrying him a paper sheet when approaches to
the expert Witness. There pointing to the large screen where
an article appears: Mustard Seeds.

MR. ROTHSCHILD
Professor Behe, I've shown you an
exhibit marked P-754, and that's an
article titled -- or a writing
titled Mustard Seeds by Dr. Michael
Atchison?

DR. BEHE
Yes.

MR. ROTHSCHILD
That is a picture of him, correct?

DR. BEHE
I think so. I haven't seen him in a
few years.

MR. ROTHSCHILD
It certainly identifies him as the
head of biochemistry in the
department of animal biology at the
University of Pennsylvania?

DR. BEHE
Yes, he's the department chair in
the vet school.

MR. ROTHSCHILD
Professor Behe, I'd like you to
look at the first -- I'm sorry, the
last paragraph on the first page,
and I'm going to read this for the

MR. ROTHSCHILD
record. This is what Professor
Atchison wrote.

(reading from the sheets of
paper)
'While I was identifying myself as
a Christian...'

MR. MUISE
Objection, Your Honor. This is
hearsay, and there's been no
foundation he even knows this thing
exists. He's reading into the
record a document that he
apparently got from somewhere that
we don't have any foundation for.
What he's reading into the record
is absolutely hearsay.

MR. ROTHSCHILD
I'm not proposing to introduce this
into evidence at this point,
although I'll reserve that right.
But this is for purposes of
impeachment. I think it's highly
relevant.

MR. MUISE
He hasn't even shown Dr. Behe even
knows anything about this article
or where it's from or any basis for
it.

MR. ROTHSCHILD
I'm going to ask him about the
facts that are stated in this
article.

THE COURT
Why isn't it fair for impeachment
purposes?

MR. MUISE
It's -- again, Your Honor, I guess
you have to see how this is going
to go. I was objecting because he's
going to read into the record a
portion of this document that he
hasn't even established that Dr.
Behe has any knowledge about.

THE COURT

Well, it's not a transcript.

MR. MUISE

That's true. It's a document that was produced out of court.

THE COURT

I understand. But to read it into the record, as you might not with a transcript, that's not reason alone to not permit it in the proceedings. I think, given the witness's answer, it's fair impeachment. Now...

MR. MUISE

I mean, impeachment in what regard? That he doesn't know this guy? He does know this guy? This guy is a biochemist. What's the impeachment? My looking at this, it appears that he's just try to make an attack against Professor Atchison because he apparently has some religious views, which apparently is a theme throughout this case.

MR. ROTHSCHILD

That is absolutely not the case, Your Honor. And I think that will become clear as we go through the document.

THE COURT

All right. Inasmuch as this is a bench trial, I'm going to give Mr. Rothschild some latitude. I'll overrule the objection.

MR. ROTHSCHILD

'While I was identifying myself as a Christian in Philadelphia, a biochemist named Michael Behe at Lehigh University was writing a book on evolution. As a biochemist, Behe found the evidence for Darwinian evolution to be very thin.'

'In fact, when he looked at the cell from a biochemical perspective, he believed there was

MR. ROTHSCHILD
evidence of intelligent design.
Behe sent his completed manuscript
to the Free Press publishers for
consideration.' That is your
publisher of Darwin's Black Box,
correct?

DR. BEHE
That's right.

MR. ROTHSCHILD
'The editor was not certain that
this manuscript was a good risk for
publication. There were clearly
theological issues at hand, and he
was under the impression that these
issues would be poorly received by
the scientific community.'

'If the tenets of Darwinian
evolution were completely accepted
by science, who would be interested
in buying the book?' The next
paragraph says, 'The editor shared
his concerns with his wife. His
wife was a student in my class.'
Again, this is consistent with your
understanding of Mr. Atchison's --
Dr. Atchison's involvement?

DR. BEHE
Yes. As I said, I think the editor,
his wife was in vet school and knew
that she was taking biochemistry
and so asked the professor in that
class.

MR. ROTHSCHILD
'She advised her husband to give me
a call. So unaware of all this, I
received a phone call from the
publisher in New York. We spent
approximately ten minutes on the
phone. After hearing a description
of the work, I suggested that the
editor should seriously consider
publishing the manuscript.

I told him that the origin of life
issue was still up in the air. It
sounded like this Behe fellow might
have some good ideas, although I

MR. ROTHSCHILD
 could not be certain since I had never seen the manuscript. We hung up, and I never thought about it again, at least until two years later.' And then in the next session titled A Blessing Years Later, Dr. Atchison writes. 'After some time, Behe's book, Darwin's Black Box, the Free Press, 1996, was published. It became an instant best seller and was widely acclaimed in the news media.'

'It is currently in its 15th printing and over 40,000 copies have been sold. I heard about it, but could not remember if this was the same book that I received the call about from the publisher. Could it be?'

'In November 1998, I finally met Michael Behe when he visited Penn for a faculty outreach talk. He told me that, yes, indeed, it was his book that the publisher called me about. In fact, he said my comments were the deciding factor in convincing the publisher to go ahead with the book. Interesting, I thought.' You did meet Dr. Atchison, correct?

DR. BEHE
 Yes, later, I did, yes

MR. ROTHSCHILD
 And is this your understanding of the kind of peer review Dr. Atchison did of your book?

DR. BEHE
 No, it wasn't. I thought he had received a copy of the manuscript and went through it. So -- but -- so, yes, I was under a different impression.

MR. ROTHSCHILD
 So he didn't review your manuscript carefully, he didn't review it at all, correct, Dr. Behe?

MR. MUISE

Objection, Your Honor. He has no personal knowledge. Again, he's using this document to assert the truth of the document, and Dr. Behe can only testify as to what his knowledge is.

THE COURT

I think that's a fair objection. You'll have to rephrase. The objection is sustained.

MR. ROTHSCHILD

You have no basis by which to dispute this account in this document, correct, Professor Behe?

DR. BEHE

My understanding is different from what is given in this account.

MR. ROTHSCHILD

And you did see some comments from some of your other reviewers, is that right?

DR. BEHE

That's correct.

MR. ROTHSCHILD

And they confirmed that you hadn't made any errors in the biochemistry, correct?

DR. BEHE

Yes.

MR. ROTHSCHILD

You were describing the bacterial flagellum correctly, its function, its appearance?

DR. BEHE

Yes.

MR. ROTHSCHILD

But they were reluctant or disagreed about intelligent design, correct?

DR. BEHE
Several were, yes, uh-huh.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 20/PM SESSION)

SCOTT A. MINNICH, PH.D., middle 50's, and attractive. Direct Examination by Mr. Muise.

MR. MUISE
Sir, is intelligent design science?

DR. MINNICH
It is. Using standard scientific reasoning of cause and effect we see machines that in every aspect look like machines that engineers produce. We don't have a Darwinian mechanism to explain these things in terms of the intermediates. So we can infer that these are the product of intelligence.

MR. MUISE
Sir, can you give us an example of design at the molecular level?

DR. MINNICH
Yeah, I've got a couple of slides, you know, this is I'm sure has been hammered to some degree already, but this is a bacterial flagellum. This is a system that I work on.

Another diagram of the Bacterial Flagellum appears at visual advices as well.

THE COURT
(smiling, having fun)
We've seen that.

There're hearing LAUGHS from the Audience and Lawyers.

DR. MINNICH
I know.

MR. MUISE
You're going to see a little bit more of it, Your Honor.

DR. MINNICH
I kind of feel like Zsa Zsa's fifth husband, you know? As the old adage

DR. MINNICH
goes, you know, I know what to do
but I just can't make it exciting.
I'll try.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 12/AM SESSION)

Dr. Behe Cross Examination by Mr. Rothschild continues.

MR. ROTHSCHILD
In Darwin's Black Box, you talk
about a purposeful arrangement of
parts, and you actually say, you
know, using that standard, almost
anything looks design, right?

DR. BEHE
I don't think I said that.

MR. ROTHSCHILD
That purposeful arrangement of
parts, that's not -- you didn't
originate that?

DR. BEHE
No, I didn't.

MR. ROTHSCHILD
At least, it goes back to Reverend
Paley?

DR. BEHE
Yes, it does. Further back than
that.

MR. ROTHSCHILD
Now let's start with the bacterial
flagellum. You've made a point
about how complicated and intricate
it is?

DR. BEHE
Yes.

MR. ROTHSCHILD
And it really is. I mean, it looks
remarkable. But a lot of biological
life is pretty remarkable?

DR. BEHE
That makes me very suspicious.

MR. ROTHSCHILD
You're suspicious about how
remarkable biological life is?

DR. BEHE
No, it makes me suspicious, you
know -- that was a joking way to
say that I think much of biological
life may bespeak design.

MR. ROTHSCHILD
Just the physical beauty of a
flower is amazing?

DR. BEHE
Amazing in a different sense. Of
course, when you're talking about
physical beauty, now you're
thinking more of an aesthetic and
philosophical concept, yes.

MR. ROTHSCHILD
The features seem to be arranged in
a way that gives it great
attractiveness?

DR. BEHE
Well, okay, but you're now speaking
of something that I was not
speaking of. When I talked about
the purposeful arrangement of
parts, it was for some function of
the system, not necessarily to be
perceived as pretty.

MR. ROTHSCHILD
Fair enough. The entire human body,
that's an amazing biological
structure?

DR. BEHE
I'm thinking of examples.

MR. ROTHSCHILD
Hopefully, not mine.

LAUGHS are hearing from the Audience.

DR. BEHE
(frowning)
Rest assured. Sure. Yes.

MR. ROTHSCHILD

We're stipulated here. Because we can make an agreement about that. The human body, in its entirety, is an amazing biological system?

DR. BEHE

Yes, it's amazing, yes, uh-huh.

MR. ROTHSCHILD

(hand up)

And just my hand?

DR. BEHE

Yes.

MR. ROTHSCHILD

(moves his hand)

Muscles and joints and bones and nerves.

(mimics that takes something)

I can grab things with it.

(pointing to Dr. Behe)

I can point.

DR. BEHE

Yes, that is certainly a very impressive biological system.

MR. ROTHSCHILD

Is that a purposeful arrangement of parts?

DR. BEHE

Is it a purposeful arrangement of parts? Yes, I think it is.

MR. ROTHSCHILD

And the physical world, too, the stars and planets and gravity, also amazing?

DR. BEHE

They are certainly amazing, yes.

MR. ROTHSCHILD

And they function in conjunction with each other to do things, create gravity, light, things like that, that are pretty remarkable?

DR. BEHE

Gravity is remarkable. Light is remarkable. But you're going to have to be very careful about the sorts of conclusions you draw from these things, because -- and simply because you don't want to just become overenthused about the beauty of nature and try to turn that into an argument.

MR. ROTHSCHILD

But it actually -- I mean, it functions. Light, I mean, it functions. And gravity, it functions?

DR. BEHE

Yes.

MR. ROTHSCHILD

And interaction of different elements on the periodic table combine to make substances in the chemical world, things we rely upon for our life and all of biological life actually relies on, right?

DR. BEHE

Yes, that's certainly true.

MR. ROTHSCHILD

And we don't rule out natural explanation for all of these amazing phenomena, do we?

DR. BEHE

Well, you're going -- I don't rule out natural explanations for anything, including intelligent design. Intelligent design does not rule out natural explanations. However, you're going to have to make some distinctions between how phenomena work and what phenomena strike many people as somehow ordered to, or is necessary for specific purposes such as the existence of life.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 21/AM SESSION)

Dr. Minnich Cross Examination begins under Mr. Harvey.

MR. HARVEY

Dr. Behe...

LAUGHS at the courtroom.

MR. HARVEY (CONT'D)

... excuse me, that was a Freudian slip.

DR. MINNICH

We're clones.

MR. HARVEY

I didn't, that was not on purpose, I assure you.

THE COURT

Obviously the flagellum has you mixed up.

MR. HARVEY

The focus of your thinking has been on molecular machines, I recognize that. But more broadly speaking, the intelligent design position asserts, as an illustrative proposition, that, for example, the hand is a purposeful arrangement of parts and, therefore, we can infer that the hand was designed?

DR. MINNICH

I haven't made that assertion.

MR. HARVEY

Are you familiar with the Reverend William Paley?

DR. MINNICH

I am.

MR. HARVEY

And Reverend William Paley posited the argument for the existence of God based on design in nature, correct?

DR. MINNICH

Correct.

MR. HARVEY

And intelligent design is making essentially the same argument that Dr. Paley made, except that it leaves God out, correct?

DR. MINNICH

It doesn't identify who the designer is, okay. But I think the arguments are a little bit more sophisticated based on what we know now compared to what Paley knew.

MR. HARVEY

I'm anxious to discuss that with you, but it is essentially the same argument with God left out, correct?

DR. MINNICH

To a degree in terms of addressing nature and asking -- seeing design and asking, is it real or just apparent.

MR. HARVEY

And just let me see if I understand the argument.

DR. MINNICH

And it goes back to the Greeks. I mean, this argument didn't initiate with Paley.

MR. HARVEY

I just want to make sure I understand the argument.

EXT. UNDEFINED FIELD - MIDDAY (FANTASY SEQUENCE)

Green grass... Mr. Harvey wearing elegant, but not so formal clothes walks... Some big stones behind him -- a prehistoric structure? Makes an idyllic, somehow mysterious environment. Something at the ground calls his attention... Crouch to it, and pick up... it's a cell phone of ancient appearance...

MR. HARVEY

I'm walking through a field, and I find a cell phone. I pick up the

MR. HARVEY
cell phone. I say, that cell phone
was obviously designed and,
therefore, there must be a
designer.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 21/AM SESSION)

Dr. Minnich Cross Examination continues by Mr. Harvey... The
latter has a cell phone -- his own, so similar that he found
at the field, but functional.

MR. HARVEY
That's the inference that I draw.
And that's the basic argument of
intelligent design, right?

DR. MINNICH
That's the argument from Paley
using a watch instead of a cell
phone, but, yeah.

MR. HARVEY
I thought I'd modernize it.

Some low LAUGHS at courtroom.

DR. MINNICH
Yeah, okay. Were there any minutes
on it?

MR. HARVEY
That's essentially the same
argument -- and just in its
essence, the core, the reasoning,
I'm asking, that's essentially the
same argument intelligent design is
making, right?

DR. MINNICH
I'll agree with that.

MR. HARVEY
And in that argument, we see
something created by -- the cell
phone is, of course, created by a
human, right?

DR. MINNICH
Correct.

MR. HARVEY

So the design theorist sees an item that's designed by a human and the theorist knows about the creative and designing capacities of humans, right?

DR. MINNICH

Right.

MR. HARVEY

And so it's a very logical inference to say, I know that that was designed by humans. I also know something about the creative or designing capacities of humans. And it's a very logical conclusion to say, that was designed by a human -- designed by intelligence and, therefore, there must be intelligence, right?

DR. MINNICH

Correct.

MR. HARVEY

Now when we move into the natural world, things get a little different, because when we -- we don't know when we pick up a natural object whether it was designed by an intelligent agent, right? I mean, I recognize...

DR. MINNICH

That's the question. That's the question.

MR. HARVEY

That's the question.

DR. MINNICH

That's the question at bay here, right. I mean, we know what it takes to write software for an algorithm for your program to call up a specific routine. I'm saying, when I work with cells and look at the instructions, the algorithm to make a flagellum, it's pretty darn sophisticated.

In fact, it's more sophisticated than anything Microsoft has come up

DR. MINNICH

with yet. I know what it takes for software engineers, to a degree, although I'm not one, to write code. And here's a code that's much more sophisticated. Is this a product of the natural random events of chemistry and physics or is there a design behind it?

When we find information storage systems, in our own experience of cause and effect, day-to-day, by scientific reasoning, standard scientific reasonings, we can say, if we find code, that there's an intelligence associated with it. Again, where there's an alphabet, musical scale, numerals or symbols involved with mathematics, and here we have a true digital scale or code that's more sophisticated again than -- so that's -- yes, that's the argument.

MR. HARVEY

Let's return to that field for just a minute.

EXT. UNDEFINED FIELD - MIDDAY (FANTASY SEQUENCE)

Mr. Harvey nest something within his hands... a little mouse emerge from the hands' cavity... He observes the mouse...

MR. HARVEY

And this time, let's -- we don't find a cell phone, but instead, we find a mouse. And we pick up the mouse. And we can feel the mouse's heart beating in our hands. And we want to know something about this mouse.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 21/AM SESSION)

Dr. Minnich Cross Examination continues by Mr. Harvey.

MR. HARVEY

Well, would you agree with me that we don't know -- at the beginning of the argument for design, we

MR. HARVEY
don't know who created that mouse,
who designed that mouse?

DR. MINNICH
Correct.

MR. HARVEY
And we don't know anything about
the capacities, desires, intents,
or other characteristics of any
designing intelligence, correct?

DR. MINNICH
Not from looking at the mouse.

MR. HARVEY
And so, therefore, wouldn't you
agree with me that the analogy
between the cell phone and
inferring the existence of human
intelligence is not at all similar
to looking at something in nature
and inferring the existence of some
intelligent agency? Wouldn't you
agree with me? That's just not
logical?

DR. MINNICH
I disagree with you. I mean, you're
dealing with a life organism versus
an inanimate construct or
contrivance by a human. In one
sense, yes, they're different. But
in terms of teasing them apart and
looking at the inner workings of
individual cells, I think we can
infer, if we see the arrangements
of parts for a purpose, that, in
our own experience, we can infer
design. It's perfectly legitimate.
Tell me why it isn't.

MR. HARVEY
Luckily, or unluckily, for you,
you're the one answering the
questions today.

DR. MINNICH
Correct.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Dr. Miller's pointing to the large screen, where photography from *Of Pandas and People* shows the legend "John loves Mary" scratched at a beach's sand... Dr. Miller Direct Examination by Mr. Walczak continues.

DR. MILLER

So Pandas basically tells students all information must come from an intelligent cause, there's information in DNA, and therefore it's just like John loves Mary written on the beach, there must have been somebody there to write it.

MR. WALCZAK

And is that correct?

DR. MILLER

No, sir, I don't think it's correct at all. I think there are logical problems with the analogy, and as an experimental scientist, there is strong scientific evidence that this is simply not the case with respect to biological information.

MR. WALCZAK

Let's start with the analogy that they make. What's wrong with this analogy to John loves Mary must have been designed by some intelligent designer?

DR. MILLER

Well, I can think of a lot of things that are wrong with it. The first thing is that the message John loves Mary, which is sitting here in the beach, doesn't have the capacity to replicate as DNA does. It is never passed along in the process of reproduction as DNA is. It can never undergo genetic recombination as DNA can. It can never be subject to natural selection as the organisms and their characteristics coded for by DNA can. In short, that message is not part of a living organism, and the fact that messages in DNA are

DR. MILLER
part of a living organism makes
them entirely different.

The second point, however, that the analogy fails is something that any philosopher, any logician would spot in a second. When we look at the John loves Mary sentence, we know, for example, what the -- we know who made that message, and what I mean by that is, we know that a human being made that message because it is the kind of message that human beings make. We also know how that designer, the human being, made that message, probably by scratching a stick or other object into the sand to move the sand apart and create the message. And, finally, from our own ordinary experience, we've seen it happen. So we know the designer, we know the mechanism, and we have observed it happen in our own empirical experience.

In the case of inferring a designer for DNA, curiously, the advocates of intelligent design don't meet those standards. They say, we can't tell who the designer is, we cannot know the mechanism, and we also do not know how the designer operated and we've never observed it. Therefore, the comparison between that kind of message and the kind of message in DNA fails even the most basic test of logic.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 10/AM SESSION)

Dr. Behe Direct Examination continues by Mr. Muise.

MR. MUISE
Now does the conclusion that
something was designed, does that
require knowledge of a designer?

DR. BEHE
No, it doesn't. And if you can
advance to the next slide.

At visual advices it's displayed a segment from Chapter 9 of *Darwin's Black Box*.

DR. BEHE (CONT'D)

I discussed that in Darwin's Black Box in Chapter 9, the chapter entitled Intelligent Design. Let me quote from it.

(reads from his hardcover copy)

Quote, The conclusion that something was designed can be made quite independently of knowledge of the designer. As a matter of procedure, the design must first be apprehended before there can be any further question about the designer. The inference to design can be held with all the firmness that is possible in this world, without knowing anything about the designer.

MR. MUISE

So is it accurate for people to claim or to represent that intelligent design holds that the designer was God?

DR. BEHE

No, that is completely inaccurate.

MR. MUISE

Well, people have asked you your opinion as to who you believe the designer is, is that correct?

DR. BEHE

That is right.

MR. MUISE

Has science answered that question?

DR. BEHE

No, science has not done so.

MR. MUISE

And I believe you have answered on occasion that you believe the designer is God, is that correct?

DR. BEHE
Yes, that's correct.

MR. MUISE
Are you making a scientific claim
with that answer?

DR. BEHE
No, I conclude that based on
theological and philosophical and
historical factors.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 06/AM SESSION)

Dr. Forrest Direct Examination on Qualifications started now
under Mr. Rothschild.

MR. ROTHSCHILD
Have you focused your academic
research on any particular subject?

DR. FORREST
Yes.

MR. ROTHSCHILD
And what is that?

DR. FORREST
I have focused my research on
issues surrounding evolution, the
teaching of evolution, and the
creationism issue.

MR. ROTHSCHILD
When you use the term creationism,
what do you mean?

DR. FORREST
Creationism means a number of
things. First and foremost it means
rejection of evolutionary theory in
favor of special creation by a
supernatural deity. It also
involves a rejection of the
established methodologies of
science, and this is all for
religious reason.

MR. ROTHSCHILD
And when you say the established
rules of science, are you referring
to methodological naturalism?

DR. FORREST

Yes. The naturalistic methodology that I just explained.

MR. ROTHSCHILD

As part of your study of evolution and creationism have you studied the subject of intelligent design?

DR. FORREST

Yes.

MR. ROTHSCHILD

And are you familiar with intelligent design being described as a movement?

DR. FORREST

Yes.

MR. ROTHSCHILD

And who describes it that way?

DR. FORREST

The proponents of intelligent design, its leaders have described it as a movement.

MR. ROTHSCHILD

And as you understand how they're using the term, what do they mean by the term movement?

DR. FORREST

It's an organized effort that centers around the execution of a particular program that they have.

MR. ROTHSCHILD

Are you familiar with other scientific topics or theories being described as a movement? Is there a chemistry movement or a germ theory movement?

DR. FORREST

I've never heard it described as such, no.

MR. ROTHSCHILD

Do you have an opinion about whether intelligent design is religious in nature?

DR. FORREST

That it is essentially religious.

MR. ROTHSCHILD

On what do you base your opinion that intelligent design is a form of creationism?

DR. FORREST

On the statements by the movement's own leaders, they have at times referred to it that way.

INT. ADL'S NATIONAL EXECUTIVE COMMITTEE, AUDITORIUM - DAY

Judge Jones continues with his speech...

JUDGE JONES

I will note that I had a choice to make in the beginning of the case as to whether or not I wanted to make myself available at all to the press, and some judges do and some judges don't. I decided that I would do that so long as I didn't discuss the merits of the case. And so I allowed certain reporters at times to interview me in chambers. This worked out well, save for some over-the-top questions, Oprah-like questions, if you will, that I got, such as 'What's your favorite sports team? How many times a week do you work out?' And my favorite: 'Who do you want to play you in the movie version?' For the record, that's the Philadelphia Eagles, six times a week, and Tom Hanks.

LAUGHS but stronger APPLAUSES...

JUDGE JONES (CONT'D)

After the trial concluded, on the plus side I had the rare privilege and pleasure of reading an article in The New Yorker Magazine by Margaret Talbot and she attributed to me the charm of a 1940's movie star and commented that I looked and sounded like a cross between actors Robert Mitchum and William

JUDGE JONES (CONT'D)

Holden. My wife and children found that utterly hilarious. And further, because my law clerks, who are in their mid-twenties, to entirely deflate me by asking me 'Judge, who exactly are Robert Mitchum and William Holden?' So it's a good news-bad news store.

APPLAUSES...

JUDGE JONES

The controversy which attended the release of my decision in December brings me, I think, to the primary point that I want to address during my remarks this morning, and this is the topic of judicial independence, and in particular how that relates to issues like the separation of church and state. In the context of the Dover case, there exists over a half century of strong legal precedents which have emanated from the Supreme Court and the intermediate appellate courts. Among other things, this history verifies and validates not only the separation of church and state, but also guides us as judges with respect to the test that we must apply to the factual circumstances as we find them.

It's always risky business to divine what the founding fathers might think about current developments, but I'm certain, I'm entirely certain, that by deciding the Dover case the way that I did, I performed my duties as a district judge in exactly the way that the founding fathers had in mind when they created the Federal Judiciary in Article III of the Constitution.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 12/PM SESSION)

Dr. Behe Cross Examination by Mr. Rothschild continues.

MR. ROTHSCHILD

Let's go on to immune system.
That's another biochemical system
that you argued in Darwin's Black
Box and you argue in your testimony
is irreducibly complex, is that
correct?

DR. BEHE

Yes.

MR. ROTHSCHILD

And I'm correct in understanding
that you have not written any peer
reviewed articles in scientific
journals arguing that the immune
system is in fact irreducibly
complex?

DR. BEHE

No. My argument is in my book,
that's right.

MR. ROTHSCHILD

Similarly you have not written any
articles in peer reviewed
scientific journals arguing that
the immune system is intelligently
designed?

DR. BEHE

Yes. Similarly that argument is in
my book, so no, I didn't do it in
peer reviewed articles.

MR. ROTHSCHILD

And nobody else has either?

DR. BEHE

That's correct.

MR. ROTHSCHILD

Is it the case that the AIDS virus
is irreducibly complex?

DR. BEHE

I think that's something that would
have to be argued on the basis of
the evidence.

MR. ROTHSCHILD
You don't have a position on that?

DR. BEHE
No, I don't.

MR. ROTHSCHILD
What about anthrax?

DR. BEHE
I don't on that either.

MR. ROTHSCHILD
What about the Type 3 secretory system? Is that an irreducibly complex system?

DR. BEHE
I would have to, I do not right now have a position on that. So, no, I do not argue that.

MR. ROTHSCHILD
Okay. I mean, are there some pathogens that are irreducibly complex?

DR. BEHE
Well, I can't think of any right now, but there certainly may be. I don't rule it out.

MR. ROTHSCHILD
Isn't it the case, Professor Behe, that we only have about four irreducibly complex systems and the rest are not? I mean, you've got the cilium, the bacterial flagellum, the immune system, the blood clotting cascade, is that it?

DR. BEHE
No, I disagree. I think probably many other systems are, but I always want to be careful in my claims and so I stick to examples that I think are the best examples.

MR. ROTHSCHILD
And so the examples that I asked you about, which are harmful systems like the AIDS virus or harm up to us anyway, AIDS virus, Type 3

MR. ROTHSCHILD
secretory system, anthrax, those
are the kinds of systems that may
very well be irreducibly complex?

DR. BEHE
They may well be, yes.

MR. ROTHSCHILD
And if they are and the immune
system is also irreducibly complex,
they're in sort of mortal
opposition to each other?

DR. BEHE
Well, the phrase mortal opposition
is not a scientific term. One can
have a philosophical position on
that I suppose, but I do not think
that, I certainly wouldn't use that
phraseology in describing it.

MR. ROTHSCHILD
But they are in opposition to each
other, one's purpose is to destroy
the other?

DR. BEHE
Now you're using the word purpose
in a non-scientific sense. I think
you're using it more in terms of
what, more a philosophical sense.
Certainly the AIDS virus -- pardon?

MR. ROTHSCHILD
I'm not. I'm asking purpose in the
sense of its function. The immune
system's function is to combat
these pathogens' function, correct?

DR. BEHE
The purpose of the immune system,
yes, is to defend an organism
against pathogens. I would not say
that the purpose of the AIDS virus
is to destroy the immune system. I
think its purpose, if anything one
could say that its purpose is to
replicate. But even that I would be
a little uncomfortable with.

MR. ROTHSCHILD
So acquired immune deficiency
disease is not combatting the
immune system?

DR. BEHE
You're asking if I thought that was
the purpose of the AIDS virus.

MR. ROTHSCHILD
Its function.

DR. BEHE
I do not think that is its
function, no.

MR. ROTHSCHILD
But in any event you do agree that
the immune system, its function is
to combat these kind of viruses?

DR. BEHE
Yes. Among other things, yes.

MR. ROTHSCHILD
Can you explain why would the
intelligent designer design one
irreducibly complex system and then
another one to combat it or fight
it?

DR. BEHE
The question of the intentions of
the designer is a question that is
separate from and beyond the
question of whether there is
design. We can know something that
is designed without knowing what
the designer intended for it. If I
might just give an example from our
everyday world, we can look at
something like a gun or some such
thing, realize immediately that it
was designed, and not know what the
purpose of it is for.

MR. ROTHSCHILD
But we do know a lot about the
intentions, desires, motives, needs
of the intelligent actors who
designed those guns, correct?

DR. BEHE

I'm going to say I don't think so. Certainly we know that if a gun were made by a human being and we know, we have other information from other sources about that, so from that other information we can certainly deduce, make good arguments about what those might be, but the case remains that that is separate information, separate from the structure of the gun, and we decide that the gun is designed by looking at the structure of it, or get away from guns, just any mechanical complex object.

MR. ROTHSCHILD

We'll return to that in a little while. Let's turn back to Darwin's Black Box and continue discussing the immune system. If you could turn to page 138? Matt, if you could highlight the second full paragraph on page 138?

As Mr. Rothschild asks, *Darwin's Black Box*, page 138, second paragraph it's highlighted at visual advices.

MR. ROTHSCHILD (CONT'D)

What you say is, 'We can look high or we can look low in books or in journals, but the result is the same. The scientific literature has no answers to the question of the origin of the immune system.' That's what you wrote, correct?

DR. BEHE

And in the context that means that the scientific literature has no detailed testable answers to the question of how the immune system could have arisen by random mutation and natural selection.

MR. ROTHSCHILD

May I approach?

THE COURT

You may.

Mr. Rothschild approaches to the Expert Witness, bear with a lot, hundreds of sheet of paper give them by Mr. Walczak.

MR. ROTHSCHILD

Professor Behe, what I have given you has been marked Plaintiff's Exhibit 743. It actually has a title, 'Behe immune system articles', but I think we can agree you didn't write these?

DR. BEHE

I'll have to look through.
(takes a so brief glance to Exhibit 743.)
No, I did not.

Dr. Behe lets fall the articles at the witness stand.

MR. ROTHSCHILD

And there are fifty-eight articles in here on the evolution of the immune system?

DR. BEHE

Yes. That's what it seems to say.

MR. ROTHSCHILD

So in addition to the, some of these I believe overlap with the eight that I previously identified that Dr. Miller had talked about, so at a minimum fifty new articles?

DR. BEHE

(seeing through his exhibit notebook)

Not all of them look to be new. This one here is from 1991 that I opened to, I think it's under tab number 3, it's entitled 'Evidence suggesting an evolutionary relationship between transposable elements and immune system recombination sequences.' I haven't seen this article, but I assume that it's similar to the ones I presented and discussed in my testimony yesterday.

MR. ROTHSCHILD

And when I say new, I just meant different from the eight that I identified with Dr. Miller.

DR. BEHE

Yes, that's right.

MR. ROTHSCHILD

A minimum of fifty, and you're right they're not all new. Some go back as early as 1971, and they go right through 2005, and in fact there's a few that are dated 2006, which I guess would indicate a forthcoming publication.

DR. BEHE

I assume so.

MR. ROTHSCHILD

Okay. So there's at least fifty more articles discussing the evolution of the immune system?

DR. BEHE

And midpoint I am, I certainly haven't had time to look through these fifty articles, but I still am unaware of any that address my point that the immune system could arise or that present in a detailed rigorous fashion a scenario for the evolution by random mutation and natural selection of the immune system.

MR. ROTHSCHILD

And I'm correct when I asked you, you would need to see a step-by-step description of how the immune system, vertebrate immune system developed?

DR. BEHE

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 for the mutation, are there any detrimental effects of the mutation, and many other such questions.

MR. ROTHSCHILD

And you haven't undertaken to try and figure out those?

DR. BEHE

I am not confident that the immune system arose through Darwinian processes, and so I do not think that such a study would be fruitful.

MR. ROTHSCHILD

It would be a waste of time?

DR. BEHE

It would not be fruitful.

MR. ROTHSCHILD

And in addition to articles there's also books written on the immune system?

DR. BEHE

A lot of books, yes.

MR. ROTHSCHILD

And not just the immune system generally, but actually the evolution of the immune system, right?

DR. BEHE

And there are books on that topic as well, yes.

Mr. Rothschild returns to Plaintiffs Counsel table. Over the table Mr. Walczak place books. Mr. Rothschild picks up one.

MR. ROTHSCHILD

I'm going to read some titles here. We have Evolution of Immune Reactions by Sima and Vetvicka, are you familiar with that?

DR. BEHE

No, I'm not.

Mr. Rothschild takes a glance to the other books...

MR. ROTHSCHILD

Origin and Evolution of the Vertebrate Immune System, by Pasquier. Evolution and Vertebrate

MR. ROTHSCHILD
 Immunity, by Kelso. The Primordial
 Vrm System and the Evolution of
 Vertebrate Immunity, by Stewart.
 The Phylogenesis of Immune
 Functions, by Warr. The
 Evolutionary Mechanisms of Defense
 Reactions, by Vetvicka. Immunity
 and Evolution, Marchalonias.
 Immunology of Animals, by Vetvicka.

Mr. Rothschild takes and bearing books at the witness stand.
 Put over it. Takes the articles and put them over the books.

MR. ROTHSCHILD (CONT'D)
 You need some room here. Can you
 confirm these are books about the
 evolution of the immune system?

DR. BEHE
 Most of them have evolution or
 related words in the title, so I
 can confirm that, but what I
 strongly doubt is that any of these
 address the question in a rigorous
 detailed fashion of how the immune
 system or irreducibly complex
 components of it could have arisen
 by random mutation and natural
 selection.

MR. ROTHSCHILD
 Or transposition and natural
 selection?

DR. BEHE
 Or transposition is a form of
 mutation, so when I say random
 mutation, that includes that, yes.

MR. ROTHSCHILD
 Okay. Even though we have all these
 articles we have seen discussing
 the transpositions and the
 transposon hypothesis?

DR. BEHE
 Well, again as I have tried to make
 clear in my testimony yesterday,
 often times people when they're
 working under the aegis of a theory
 simply assume some component of it,
 and my example of that was the

DR. BEHE
ether theory of the propagation of light. All of the physicists of the relevant era, the late 19th century, including the most eminent ones, thought that that happened and they thought that ether was absolutely required by their theory, but it had turned out later not to exist. And so as somebody who's not working within a Darwinian framework, I do not see any evidence for the occurrence of random mutation and natural selection.

MR. ROTHSCHILD
Let me give you some space there.

DR. BEHE
Thank you.

Mr. Rothschild moves the books on the witness stand in order to allow a free space on it... Mr. Rothschild returns to the Plaintiffs Counsel table. Mr. Walczak puts others books over the table.

MR. ROTHSCHILD
There's also books on the immune system that have chapters on the evolution of the immune system?

DR. BEHE
Yes, and my same comment would apply to those.

MR. ROTHSCHILD
I'm just going to read these titles, it sounds like you don't even need to look at them?

DR. BEHE
Please do go ahead and read them.

Mr. Rothschild takes and open the books where they're mark.

MR. ROTHSCHILD
You've got Immune System Accessory Cells, Fornusek and Vetvicka, and that's got a chapter called 'Evolution of Immune Sensory Functions.' You've got a book called The Natural History of the

MR. ROTHSCHILD
Major Histocompatibility Complex,
that's part of the immune system,
correct?

DR. BEHE
Yes.

MR. ROTHSCHILD
And here we've got chapter called
'Evolution.' Then we've got
Fundamental Immunology, a chapter
on the evolution of the immune
system.

Mr. Rothschild takes the books and places them beside to the
others at the witness stand before Dr. Behe.

MR. ROTHSCHILD (CONT'D)
A lot of writing, huh?

DR. BEHE
Well, these books do seem to have
the titles that you said, and I'm
sure they have the chapters in them
that you mentioned as well, but
again I am quite skeptical,
although I haven't read them, that
in fact they present detailed
rigorous models for the evolution
of the immune system by random
mutation and natural selection.

MR. ROTHSCHILD
Let me see if I can summarize the
intelligent design project. You've
studied peer reviewed articles
about the structure and function of
the cell, correct?

DR. BEHE
Yes.

MR. ROTHSCHILD
And you conclude from them that
certain structures are irreducibly
complex that could not have evolved
through natural selection, and
therefore are intelligently
designed?

DR. BEHE

I conclude from them that we see very detailed molecular machinery in the cell, that it strongly looks like a purposeful arrangement of parts, that in fact a purposeful arrangement of parts is a hallmark of intelligent design. I surveyed the literature and I see no Darwinian explanations for such things. And when one applies one's own reasoning to see how such things would be addressed within a Darwinian framework it's very difficult to see how they would, and so one concludes that one explanation, Darwinian processes, doesn't seem to have a good answer, but that another explanation, intelligent design, does seem to fit better.

MR. ROTHSCHILD

And that conclusion tells you design is not one that's being asserted by the people who wrote the articles about the structure and function of the cell?

DR. BEHE

That's correct.

MR. ROTHSCHILD

And as we discussed before, one, a conclusion that many have actively disagreed with?

DR. BEHE

That's correct, too.

Mr. Rothschild backs to the Plaintiffs Counsel table. There, he takes a copy of *Darwin's Black Box*, and open it.

MR. ROTHSCHILD

And you stated that if the natural mechanism is to be accepted, its proponents must publish or perish?

DR. BEHE

I'm sorry.

MR. ROTHSCHILD

And then you stated in the Darwin's Black Box that, 'If the natural mechanism is to be accepted, its proponents must publish or perish.'

DR. BEHE

I'm sorry, can I see that phrase?

MR. ROTHSCHILD

Yes, could you go to page 185 and 186 in the chapter 'Publish or Perish?

DR. BEHE

(check it on his hardcover copy)

Yes. Okay, and what are you referring to here, sir?

MR. ROTHSCHILD

You stated in this book that on the subject of molecular evolution the advocates of the natural mechanism, the Darwinian mechanism, must publish or perish, correct?

DR. BEHE

I'm hanging up on the word natural mechanism. Where does that occur? I don't see that.

MR. ROTHSCHILD

The Darwinian mechanism?

DR. BEHE

Okay, Darwinian mechanism. Okay, yes, that's correct.

MR. ROTHSCHILD

You conclude the chapter called 'Publish or Perish' by saying, 'In effect, the theory of Darwinian molecular evolution has not published, and so it should perish', right?

DR. BEHE

That's correct, yes.

MR. ROTHSCHILD

And then all these hard working scientists publish article after

MR. ROTHSCHILD
article over years and years,
chapters and books, full books,
addressing the question of how the
vertebrate immune system evolved,
but none of them are satisfactory
to you for an answer to that
question?

DR. BEHE
Well, see, that again is an example
of confusing the different meanings
of evolution. As we have seen
before, evolution means a number of
things, such as change over time,
common descent, gradualism and so
on. And when I say Darwinian
evolution, that is focusing exactly
on the mechanism of natural
selection. And none of these
articles address that.

MR. ROTHSCHILD
Again at the same time you don't
publish any peer reviewed articles
advocating for the alternative,
intelligent design?

DR. BEHE
I have published a book, or -- I
have published a book discussing my
ideas.

MR. ROTHSCHILD
That's Darwin's Black Box, correct?

DR. BEHE
That's the one, yes.

MR. ROTHSCHILD
And you also propose tests such as
the one we saw in 'Reply to My
Critics' about how those Darwinians
can test your proposition?

DR. BEHE
Yes.

MR. ROTHSCHILD
But you don't do those tests?

DR. BEHE

Well, I think someone who thought an idea was incorrect such as intelligent design would be motivated to try to falsify that, and certainly there have been several people who have tried to do exactly that, and I myself would prefer to spend time in what I would consider to be more fruitful endeavors.

MR. ROTHSCHILD

Professor Behe, isn't it the case that scientists often propose hypotheses, and then set out to test them themselves rather than trusting the people who don't agree with their hypothesis?

DR. BEHE

That's true, but hypothesis of design is tested in a way that is different from a Darwinian hypotheses. The test has to be specific to the hypothesis itself, and as I have argued, an inductive hypothesis is argued or is supported by induction, by example after example of things we see that fit this induction.

MR. ROTHSCHILD

We'll return to the induction in a few minutes.

DR. BEHE

Yes, sir. Mr. Rothschild, would you like your books back? They're heavy.

Mr. Rothschild turns to Mr. Walczak.

MR. ROTHSCHILD

Help me get to sleep tonight.

DR. BEHE

Thank you.

Mr. Rothschild is helped by Mr. Walczak in order to get back all the books to the Plaintiffs Counsel table.

MR. ROTHSCHILD
 Hopefully we won't be back in a couple of years for the sudden emergence trial. But this clearly does as the passage we read...

THE COURT
 Not on my docket, let me tell you.

Some funny LAUGHS...

EXT. FEDERAL BUILDING, LOW FLOOR FRONT - AFTERNOON

From a door a man on 60's, ROBERT SLADE emerges. A Newspaper Reporter towards to him.

NEWSPAPER REPORTER #2
 Sir, do you may tell me you involvement on this trial?

MR. SLADE
 Well, you see, I'm just a local retiree in attendance to the trial because I'm interested in science. That's all.

NEWSPAPER REPORTER #2
 Do you can tell something in regard of Dr. Behe's testimony today?

MR. SLADE
 Well... You've got to admire the guy. It's Daniel in the lion's den, but...
 (smiles, a beat, laughing)
 But I can't believe he teaches a college biology class.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 07/AM SESSION)

JENNIFER MILLER, DAHS Teacher, at 30's, thin curly brunette, Direct Examination, by Mr. Schmidt. Over the visual advises: DASD School Board Release for Biology Curriculum -- Update 11/19/04.

MR. SCHMIDT
 What is this?

MRS. MILLER
 This is a press release. I think it was on the Web site, district Web site, about...

MR. SCHMIDT
What was the -- sorry.

MRS. MILLER
About the biology curriculum and
what was to be read to the
students.

MR. SCHMIDT
What is the date of the first
posting of this press release?

MRS. MILLER
November the 19th of 2004.

MR. SCHMIDT
I'd ask you to look down to the
last paragraph before the final
indented material at the bottom
that starts, In coordination.

MRS. MILLER
Okay.

MR. SCHMIDT
Will you read that aloud into the
record?

MRS. MILLER
(reading from the monitor)
In coordination with the science
department teachers, the district
solicitor, and the school board,
Mr. Michael Baksa, the assistant
superintendent in charge of
curriculum, developed the following
procedural statement that will be
read to all students as the new
biology curriculum is implemented
beginning in January, 2005.

MR. SCHMIDT
Is that an entirely accurate
statement?

MRS. MILLER
We did not think -- we didn't like
the 'in coordination with the
science department teachers' part.

MR. SCHMIDT
Did you believe that was an
inaccurate statement?

MRS. MILLER

Yes.

MR. SCHMIDT

What did you do about it as science teachers?

MRS. MILLER

We wrote a letter to Dr. Nilsen, I believe, that stated that we weren't -- we think that the 'in coordination with the science teachers' sort of misrepresented what factor we had to play in it.

MR. SCHMIDT

Ms. Miller, did you actually read that statement to your students in the ninth-grade biology class?

MRS. MILLER

No.

MR. SCHMIDT

Did you refuse to read it?

MRS. MILLER

Yes.

MR. SCHMIDT

I'd like you to turn to a document that's been marked Plaintiffs' Exhibit 121.

At the visual advices DAHS Teachers' memorandum: Re: Reading Statement on Intelligent Design.

MRS. MILLER

Okay.

MR. SCHMIDT

What is this document?

MRS. MILLER

This is a document sent to Dr. Nilsen where the science teachers were asking to be -- to basically opt out of reading that statement to the biology classes.

MR. SCHMIDT

Did you have a hand in preparing this document?

MRS. MILLER

Yes.

MR. SCHMIDT

Do you agree with it?

MRS. MILLER

Yes.

MR. SCHMIDT

Look down at the second paragraph from the bottom before the boldface. Do you see that?

MRS. MILLER

Yes.

MR. SCHMIDT

Would you read that paragraph into the record?

Meanwhile Mrs. Miller reads, the memorandum's next paragraph it's visible at the large screen:

INTELLIGENT DESIGN IS NOT SCIENCE. INTELLIGENT DESIGN IS NOT BIOLOGY. INTELLIGENT DESIGN IS NOT AN ACCEPTED SCIENTIFIC THEORY.

MRS. MILLER

(reading from the monitor)

Central to the Teaching Act and our ethical obligation is the solemn responsibility to teach the truth. Section 235.10 guides our relationships with students and provides that the professional educator may not knowingly and intentionally misrepresent subject matter or curriculum.

MR. SCHMIDT

And why, guided by that principle, did you refuse to read the statement to your students?

MRS. MILLER

By us reading the statement to our students, it essentially was -- it was going to be very contradictory to the students by saying, number one, that intelligent design is science, which we didn't believe it was, and that would be misrepresenting a subject matter.

And, number two, if I'm telling the students that I'm going to teach evolution, which is very important and they're going to be tested on it, but yet ask them to go and read Of Pandas and People, which says that evolution didn't occur, to me that's confusing for the students. It's contradictory to do both. Okay? For them to be tested on evolution but yet say evolution didn't occur confused our students and would misrepresent how important evolutionary theory is to the students.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 10/AM SESSION)

Dr. Behe Direct Examination on Qualifications by Mr. Muise.

MR. MUISE

Now is it your understanding that this book Pandas is part of the controversy in this lawsuit?

DR. BEHE

Yes, I understand that.

MR. MUISE

What is your understanding of how this book will be used at Dover High School?

DR. BEHE

I understand that there is a short statement that is read to students that says that the book Of Pandas and People is available in the school library for students to access.

MR. MUISE

Do you see that as a good thing?

DR. BEHE

Yes, I do

MR. MUISE

Why?

DR. BEHE

Because the book Of Pandas and People brings a different viewpoint, a different perspective to the same data that is viewed oftentimes through a Darwinian perspective, and it can show students that viewing data from different directions oftentimes can affect how we judge the strength of data, how we judge the problems associated with a particular viewpoint and so on.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/PM SESSION)

Dr. Padian Direct Examination by Mr. Walczak continues.

DR. PADIAN

I think it makes people stupid. I think essentially it makes them ignorant. It confuses them unnecessarily about things that are well understood in science, about which there is no controversy, about ideas that have existed since the 1700's, about a broad body of scientific knowledge that's been developed over centuries by people with religious backgrounds and all walks of life, from all countries and faiths, on which everyone can understand.

I can do paleontology with people in Morocco, in Zimbabwe, in South Africa, in China, in India, any place around the world. I have co-authors in many countries around the world. We don't all share the same religious faith. We don't share the same philosophical outlook, but one thing is clear, and that is when we sit down at the table and do science, we put the rest of the stuff behind.

MR. WALCZAK

Let me just ask you, the Dover school district's response has been it's a one-minute statement, students don't have to stay in the

MR. WALCZAK
classroom to listen to it, you know, what's the big deal? Why are we fighting this? Why are students harmed? Why is anybody harmed by reading this one-minute statement to the students?

DR. PADIAN
Well, in my view, having educated students for thirty years, and so at a variety of levels from middle school up to graduate students my sense is that it's very difficult to constrain inquiry just by saying you're going to cut it off, and it's very difficult to say that if you just read a statement it's not going to harm anybody. It's quite clear from the evidence that's been given and from the fact that we're sitting here and by the situation that's developed in Dover, clear from news reports of people arguing with each other, parents arguing with other parents and teachers, teachers arguing with the school board, school board members arguing with each other and quitting, who knows how many bitter conversations have taken place in supermarket aisles and across telephone wires.

MR. MUISE
I'm going to object, Your Honor. This is going far down the road of speculation.

THE COURT
I'll overrule the objection to the extent that I'm not hearing anything that I haven't heard before...

(to Mr. Walczak)
... but why don't you interject a question at this point.

MR. WALCZAK
So as a science educator, as somebody who has educated students for thirty years, why is this statement a problem?

INT. DOVER AREA HIGH SCHOOL (DAHS) - DAY

MONTAGE UNDER DR. PADIAN: Jessica Kitzmiller at DAHS.

CORRIDOR

Jessica Kitzmiller leaves the classroom... At corridor found out her biology teacher Mrs. Miller... Both sight each other with confusion and embarrassment...

DR. PADIAN (V.O.)

It's clearly caused a great division in students, a great confusion. If some students are allowed to -- well, if students are required or allowed to hear a statement that is not read by their teacher...

CAFETERIA

Jessica Kitzmiller's taking lunch with her friends. Suddenly turns to a near table where a group of boys pay attention on her... Then a boy mimics caricaturized monkey's manners...

DR. PADIAN (V.O.)(CONT'D)

... and unlike any other statement in the curriculum they may not ask questions about this and they may not discuss it further, this roping off of this kind of a statement means that it's to be treated differently.

PLAYGROUND

Jessica Kitzmiller speaks before a small group of her peers. Then she apart upset, when boys begin to move their fists... and vociferate, cheerfully...

DR. PADIAN (V.O.)(CONT'D)

It essentially ostracizes this area of study. It makes students confused, and they do ask questions. My students ask me questions about this kind of thing all the time. I don't think you can say that by cutting off inquiry you're going to stop people from asking questions. There are

DR. PADIAN (V.O.)(CONT'D)
questions that intelligent design
raises for students, and not just
about science.

Now there's possible hear what the students SHOUT to Jessica
Kitzmiller... "MONKEY GIRL! MONKEY GIRL! MONKEY GIRL! MONKEY
GIRL! MONKEY GIRL...!"

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 09/PM SESSION)

Dr. Padian Direct Examination by Mr. Walczak continues.

DR. PADIAN
They are going to ask about if we
have a situation where certain
structures cannot evolve, that the
natural processes that were perhaps
created by a creator aren't
sufficient to accomplish things,
then what does this say about the
perfection of the creation or the
creator? What does this say about
the ability of the creator to
intervene in natural processes? If
the creator can intervene, why
doesn't he do so more often to
relieve pain and suffering? And if
this is a problem, of what good is
prayer?

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/PM SESSION)

Dr. Miller Direct Examination continues by Mr. Walczak.

DR. MILLER
And by holding this up as an
alternative to evolution, students
will get the message in a flash.
And the message is, over here,
kids. You got your God consistent
theory, your theistic theory, your
Bible friendly theory, and over on
the other side, you got your
atheist theory, which is evolution.
It produces a false duality. And it
tells students basically, and this
statement tells them, I think,
quite explicitly, choose God on the
side of intelligent design or
choose atheism on the side of
science.

What it does is to provide religious conflict into every science classroom in Dover High School. And I think that kind of religious conflict is very dangerous. I say that as a person of faith who was blessed with two daughters, who raised both of my daughters in the church, and had they been given an education in which they were explicitly or implicitly forced to choose between God and science, I would have been furious, because I want my children to keep their religious faith.

I also want my students to love, understand, respect, and appreciate science. And I'm very proud of the fact that one of my daughters has actually gone on to become a scientist. So by promoting this, I think, this is a tremendously dangerous statement in terms of its educational effect, in terms of its religious effect, and in terms of impeding the educational process in the classrooms in Dover.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 06/PM SESSION)

Dr. Forrest Direct Examination on Expert Testimony continues by Mr. Rothschild.

MR. ROTHSCHILD

Dr. Forrest, you've referred on quite a few occasions during your testimony to the Discovery Institute and the Center for Science and Culture. When was the Discovery Institute founded?

DR. FORREST

The Discovery Institute itself, which is a think tank, was founded in 1990.

MR. ROTHSCHILD

And where is that located?

DR. FORREST
It's in Seattle, Washington.

MR. ROTHSCHILD
And then there was the center that
was started. When was that?

DR. FORREST
Yes, the Center for the Renewal of
Science and Culture was established
as an arm of the Discovery
Institute in 1996.

MR. ROTHSCHILD
And does it still go by that name?

DR. FORREST
No, the name has been shortened to
Center for Science and Culture.

MR. ROTHSCHILD
How does the center fund -- is the
center devoted to the proposition
of intelligent design?

DR. FORREST
Yes, it exists expressly to promote
intelligent design.

MR. ROTHSCHILD
What is the mission of the Center
for Science and Culture?

DR. FORREST
The mission of the Center for
Science and Culture, as they state,
is to replace materialistic science
with science that is consonant with
their Christian and theistic
convictions.

MR. ROTHSCHILD
Is there a document that states
that?

DR. FORREST
There is. The formal title of that
document is The Wedge Strategy.

MR. ROTHSCHILD
Could you pull up the Exhibit
P-516, please?

At visual advice appears The Wedge Document's cover page.

MR. ROTHSCHILD (CONT'D)
Is that the cover page of The Wedge?

DR. FORREST
That is the cover page, yes.

INT. DR. FORREST'S OFFICE - DAY

Dr. Forrest, seated at her desk looks at computer's monitor, where an article of the *Seattle Weekly* entitled: Discovery's Creation appears... Roll up the article. Photography of Matt Duss and Tim Rhodes together, each with index fingers beside their heads as horns pose on a funny manner appears below...

Dr. Forrest raises her eyebrows...

MR. ROTHSCHILD (V.O.)
And it indicates that it is from the Center for the Renewal of Science and Culture, the Discovery Institute?

DR. FORREST (V.O.)
Right.

MR. ROTHSCHILD (V.O.)
And has the Discovery Institute acknowledged, yes, this is our product?

DR. FORREST (V.O.)
They have. They acknowledged it in 2002.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 06/PM SESSION)

Dr. Forrest Direct Examination on Expert Testimony continues by Mr. Rothschild.

MR. ROTHSCHILD
Is the Wedge Strategy document particularly important to your understanding of the intelligent design movement?

DR. FORREST
It's the best most concise statement of what the movement is about in its entirety. It lays out the strategy and goals for the next 20 years.

MR. ROTHSCHILD
 Have you highlighted important parts of the Wedge document for your testimony here today?

DR. FORREST
 Yes.

MR. ROTHSCHILD
 What I'd like you to do is, just walk us through what you considered the important parts of the document and explain why they're important to your opinion about intelligent design?

DR. FORREST
 Okay. Matt, could I have the first slide, please?

At visual advices appears highlighted first paragraph of the first page of The Wedge Document.

DR. FORREST (CONT'D)
 This is the first page of the Wedge Strategy, and this is the opening paragraph of it. Quote, The proposition that human beings are created in the image of God is one of the bedrock principles on which western civilization was built.

This is the opening statement, and it states very well the foundational belief behind the intelligent design movement and the reason that they have rejected the theory of evolution. The next slide, please.

Another fragment of The Wedge first page it's highlighted.

DR. FORREST (CONT'D)
 Quote, Debunking the traditional conceptions of both God and man, thinkers such as Charles Darwin, Karl Marx, and Sigmund Freud portrayed humans not as moral and spiritual beings, but as animals or machines who inhabited a universe ruled by purely impersonal forces and whose behavior and very thoughts were dictated by the

DR. FORREST (CONT'D)
unbending forces of biology,
chemistry, and environment.

As you can see, Darwin here is bundled with two other thinkers, Karl Marx and Sigmund Freud, and there is a reason for that. Charles Darwin is the one, the scientist whose theories are the specific target of the intelligent design movement. And what they are saying here is that, Darwin is a source of a type of biological determinism which precludes the existence of a spiritual side of human life and, therefore, takes away our spiritual dimension.

Karl Marx represents historical determinism. Sigmund Freud represents psychological determinism. And all of these thinkers are regarded as materialists who have contributed to the degradation of western culture.

Next slide, please.

Another fragment of The Wedge first page it's highlighted.

DR. FORREST (CONT'D)
Quote, The cultural consequences of this triumph of materialism were devastating. Materialists deny the existence of objective moral standards claiming that environment dictates our behavior and beliefs. Such moral relativism was uncritically adopted by much of the social sciences, and it still underguards much of modern economics, political science, psychology, and sociology, end quote.

This is, of course, an objection to materialism. This is not new. Creationists typically object to materialism. And it also, they also object to moral relativism, the idea that moral standards are less

DR. FORREST (CONT'D)

than absolute. You can also see here that they regard the effect of evolution as pervasive have throughout all of the disciplines, which include the social sciences as well.

Next slide, please.

Another fragment of The Wedge first page it's highlighted.

DR. FORREST (CONT'D)

Quote, Discovery Institute's Center for the Renewal of Science and Culture seeks nothing less than the overthrow of materialism and its cultural legacies, end quote. This gives a very good indication of the comprehensive program that the Discovery Institute's Center for Science and Culture has instituted.

They would like to completely change the way science is understood and to completely reverse the effect of what they call scientific materialism on American culture. And as they understand it, the only way they can do that is through renewal, which means basically renewing the religious foundations of American culture.

Next slide, please.

Another fragment of The Wedge first page it's highlighted.

DR. FORREST (CONT'D)

Quote, The center explores how new developments in biology, physics, and cognitive science raise serious doubts about scientific materialism and have reopened the case for a broadly theistic understanding of nature, end quote. What this indicates is that the intelligent design creationists are using the developments of modern science and reinterpreting them in such a way as to support their view that the supernatural can be a scientific explanation.

I might point out that this was original wording on an early website, which actually helped me to authenticate this document. But on that early website, it says, have reopened the case for the supernatural. It was specifically stated. That term was used.

MR. ROTHSCHILD

Has the intelligent design movement described its strategy as a big tent strategy? And let's make sure we don't talk about college football.

DR. FORREST

A big tent with a T, yes.

MR. ROTHSCHILD

And what do you understand that term to mean as they use it?

DR. FORREST

The big tent strategy was developed by Phillip Johnson. It's a strategy to avoid alienating young earth creationists, to convince them to join in the intelligent design movement, and to agree to put off discussion of what they consider devicive issues, such as the interpretation of the Book of Genesis, and to knight around the effort of the intelligent design movement.

MR. ROTHSCHILD

And this is a term they've used to describe themselves?

DR. FORREST

Yes, they've written about it.

MR. ROTHSCHILD

Matt, could you pull up Exhibit 429, P-429, and highlight the title and author? And actually, if you could actually highlight further down which indicates where this article was first published. Could you read the title into the record, Dr. Forrest, and the author?

Matthew McElvenny does as Mr. Rothschild asks on Life in the Big Tent: Traditional Creationism and the Intelligent Design Community, from *Christian Research Journal*.

DR. FORREST

The title of this article is Life in the Big Tent: Traditional Creationism and the Intelligent Design Community, by Paul A. Nelson.

MR. ROTHSCHILD

And this indicates it was published in 2002 in the Christian Research Journal?

DR. FORREST

That's correct.

MR. ROTHSCHILD

Who is Paul Nelson?

DR. FORREST

Paul Nelson is a young earth creationist who is one of the founding members of the Wedge. He's been with the Center for Science and Culture since it was the Center for the Renewal of Science and Culture. He is an integral member of this group.

MR. ROTHSCHILD

Have you highlighted passages in this article that you found significant?

DR. FORREST

Yes.

MR. ROTHSCHILD

Matt, could you go to the first highlighted passage?

At the visual advices appears the synopsis highlighted.

DR. FORREST

This is the synopsis of the article. Quote, Until recently, the majority of active dissenters from neo-Darwinian naturalistic evolution could be classified as young-earth, or what I call

DR. FORREST

traditional creationists. Their dissent could be dismissed as motivated by Biblical literalism, not scientific evidence.

While this criticism of traditional creationist is unfair to the actual content of their views, many prominent creationists are outstanding scientists. The absence of a wider community of dissent from Darwinism hindered the growth of scientific alternatives to the naturalistic theory.

Such a wider community now exists in the intelligent design, ID, movement. Within the past decade, the ID community has matured around the insights of UC Berkeley Professor Phillip Johnson whose central insight is that science must be free to seek the truth, wherever it lies.

The possibility of design, therefore, cannot be excluded from science. This outlook has deep roots in the history of western science and is essential to the help of science as a truth seeking enterprise. Under the canopy of design as an empirical possibility, however, any number of particular theories may also be possible, including traditional creationism, progressive, or old-earth creationism, and theistic evolution.

Both scientific and scriptural evidence will have to decide the competition between these theories. The big tent of ID provides a setting in which that struggle after truth can occur and from which the secular culture may be influenced, end quote.

MR. ROTHSCHILD

Does this synopsis summarize this big tent strategy?

DR. FORREST

Yes, it summarizes it.

MR. ROTHSCHILD

Mr. Nelson indicates they also include proponents of theistic evolution. Have proponents of theistic evolution, in fact, been embraced under intelligent design's big tent?

DR. FORREST

No, it has not. In fact the intelligent design movement specifically rejects theistic evolution.

MR. ROTHSCHILD

Matt, why don't you go to the next passage.

The next highlighted passage appears at visual advices.

DR. FORREST

Quote, The growth of a broader debate about evolution and creation can actually be seen as a boon for those struggling to discern the proper relationship between science and faith, how to understand the Book of Genesis, and how to defend the Christian world view in a hostile secular culture.

Life in the big tent of the intelligent design community certainly requires a period of acclamation, but Christians, in particular traditional creationists, should welcome their new ID surroundings.

MR. ROTHSCHILD

And this objective of defending the Christian world view in a hostile secular culture, is that a theme that runs through all forms of creationism?

DR. FORREST

That's a very strong theme. That's apologetic, essentially defending Christianity from what they perceive to be a hostile culture.

MR. ROTHSCHILD

I think that's the first time you used the term apologetics in your testimony. What you just said, is that the definition of apologetics?

DR. FORREST

Yes.

MR. ROTHSCHILD

Why don't you go to the next passage, Matt.

The next highlighted passage appears at visual advices.

DR. FORREST

Quote, Let's begin with some history. The year 1997 marks a noteworthy turning point in the American debate over the science and philosophy of origins. In that year, a long cultural battle that had begun more than a quarter century earlier with Henry Morris and John Whitcomb's classic, *The Genesis Flood*, in 1961 appeared to many onlookers to have come decisively to an end when the *Edwards v. Aguillard* decision of the U.S. Supreme Court declared creation-science to be a religious belief, end quote.

MR. ROTHSCHILD

Could you go to the next passage?

The next highlighted passage appears at visual advices.

DR. FORREST

Quote, In 1982, Federal Judge William Overton declared the Arkansas balanced treatment law unconstitutional in *McLean v. Arkansas Board of Education*, but it was the 1997 Supreme Court opinion, *Edwards v. Aguillard*, that seemed to shut the door permanently on creationism, end quote.

The next highlighted passage appears at visual advices.

MR. ROTHSCHILD
Go onto the next passage.

DR. FORREST
Quote, The two-model approach to the origin's controversy was now dead, end quote.

MR. ROTHSCHILD
Just remind us, what is meant by the two-model approach?

DR. FORREST
The two-model approach is -- and this was actually referred to in the McLean decision as the contrived dualism. The two-model approach is the view that there are two possibilities for explaining origins. One is creation-science, and the other is evolution. The idea there is that, if evolution can be successfully undermined, creation-science will win the debate by default.

MR. ROTHSCHILD
I want to go to the next passage, Matt.

The next highlighted passage appears at visual advices.

DR. FORREST
Quote, Edwards v. Aguiard seemingly had ended the public debate over origins. A revolution from an unexpected quarter, however, was about to occur...

EXT. LONDON, A SOHO'S STREET - MORNING

Thorough waddle walk, PHILLIP E. JOHNSON, late 50's, slightly sturdy, partially bald pass before a bookstore's show case... His face it's seen scarcely by the glass reflexion... Behind this appear two books: Richard Dawkins' *The Blind Watchmaker* and Michael Denton's *Evolution, A Theory in Crisis*.

DR. FORREST (V.O.)
In 1997, Phillip Johnson, a professor of law at the University of California, Berkeley, was taking a year's sabbatical in London, England.

Every day on the walk to his office, he passed a book shop where Richard Dawkins' The Blind Watchmaker and Michael Denton's Evolution, A Theory in Crisis, were on sale. Curious, Johnson bought the books and read them through...

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 06/PM SESSION)

Dr. Forrest Direct Examination on Expert Testimony continues by Mr. Rothschild.

DR. FORREST

He noticed immediately that the ostensible issues of Edwards v. Aguillard were not the real issues at all, end quote.

MR. ROTHSCHILD

Go to the next passage.

The next highlighted passage appears at visual advices.

DR. FORREST

Quote, The creationists in Louisiana never had a chance. Because of the way science was defined in the debate, the very possibility of evidence against Darwinian evolution had been excluded at the outset. Reading the amicus briefs in Edwards v. Aguillard, such as that filed by the National Academy of Science, the most prestigious group of scientists in the nation, Johnson discovered that what had been presented on the ground rules -- as the ground rules of science had tilted the playing field irrevocably in favor of Darwinian evolution.

In Darwin on Trial, the influential book that drew out of his 1987 insights, Johnson wrote, quote, The academy does define science in such a way that advocates of supernatural creation may neither argue for their own position nor dispute the claims of the

DR. FORREST
scientific establishment, end
quote.

MR. ROTHSCHILD
And what do you understand Mr.
Nelson to mean by the way science
was defined in this debate? How was
science defined, so to speak, in
Edwards v. Aguillard?

DR. FORREST
It's defined as naturalistic,
remaining within the area of the
natural world and seeking
explanations.

MR. ROTHSCHILD
Have members of the intelligent
design movement admitted that they
are lagging behind on the phase of
scientific research?

DR. FORREST
Yes, they have admitted it.

MR. ROTHSCHILD
Matt, could you pull up the Exhibit
P-410?

At visual advices, July/August 2004 issue of *Touchstone* it's
displayed: *Darwin's Last Stand*.

MR. ROTHSCHILD (CONT'D)
And this is actually the cover of a
magazine. Can you tell us what this
is that is?

DR. FORREST
This is the cover of a magazine
called *Touchstone: A Journal of
Mere Christianity*. This is the
July/August 2004 issue. The special
title of this issue is *Darwin's
Last Stand*, a special issue of
*Darwinism, naturalism, and
intelligent design*.

MR. ROTHSCHILD
And what was contained in this
magazine?

DR. FORREST

There were articles by intelligent design supporters, and most prominently, an interview with the leaders of the intelligent design movement.

MR. ROTHSCHILD

And I'd actually like to look at that interview. Matt, could you turn to the cover page of that interview?

Interview article: The Measure of Design appears over visual advices.

MR. ROTHSCHILD (CONT'D)

And what is that called, Dr. Forrest?

DR. FORREST

The title for this interview is called The Measure of Design.

MR. ROTHSCHILD

And some of the people who were interviewed included Phillip Johnson, William Dembski, Paul Nelson?

DR. FORREST

Yes, Phillip Johnson, Dr. William Dembski, Dr. Paul Nelson, and several others.

MR. ROTHSCHILD

And, Matt, could you highlight the answers given by Paul Nelson that Dr. Forrest asked you to highlight? And can you tell us what Mr. Nelson is talking about here?

A composed slide appears highlighted at the visual advices.

DR. FORREST

Would you like me to read that? Yes, this is Dr. Nelson. Quote, This is in response -- by the way to a question, so that you'll understand the context of it. The question was, Is intelligent design just a critique of evolutionary theory or does it offer more? Does

DR. FORREST

it offer something that human kind needs to know? This is his answer. Quote, It offers more, but demonstrating that is going to be a long-term challenge. Science in the key of design, if you will, is a melody that we are going to have to teach others to hear and play.

First, of course, we have to master it ourselves. Easily, the biggest challenge facing the ID community is to develop a full-fledged theory of biological design. We don't have such a theory right now, and that's a real problem. Without a theory, it's very hard to know where to direct your research focus.

Right now, we've got a bag of powerful intuitions and a handful of notions such as irreducible complexity and specified complexity, but as yet, no general theory of biological design, end quote.

MR. ROTHSCHILD

Dr. Forrest, the school district and school board in Dover sent a newsletter to the Dover community which told the citizens of Dover that intelligent design is a scientific theory. Is there any way you can reconcile that with Mr. Nelson's statements?

DR. FORREST

There's no way to reconcile that at all.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 01/AM SESSION)

Dr. Miller Direct Examination continues by Mr. Walczak... At visual advices, appear the booklet: *Science and Creationism: A View From the National Academy of Sciences*.

MR. WALCZAK

Is evolutionary theory, including natural selection and descent with modification from a common

MR. WALCZAK
ancestor, generally accepted by the
scientific community?

DR. MILLER
It is overwhelmingly accepted by
the scientific community

MR. WALCZAK
Now, I believe you testified
earlier that the National Academy
of Sciences is probably the most
prestigious scientific association
in the country?

DR. MILLER
I think it's probably the most
prestigious scientific association
in the world.

MR. WALCZAK
And have they taken a position on
whether evolution is accepted?

DR. MILLER
Yes, they have.

MR. WALCZAK
I'd like to now direct your
attention to Plaintiffs' Exhibit
192. Do you recognize this
publication?

DR. MILLER
Yes, I do.

MR. WALCZAK
And who publishes this?

DR. MILLER
This is a booklet that was
published a few years ago by the
National Academy of Sciences.

MR. WALCZAK
Matt, could you go to Page Roman
Numeral VIII, please, and if you
could highlight the text.

The highlighted text appears at visual advices.

MR. WALCZAK (CONT'D)

Dr. Miller, I'd like you to read from this National Academy of Sciences publication the highlighted text, please.

DR. MILLER

Sure, I'd be glad to. Quote, The concept of biological evolution is one of the most important ideas ever generated by the application of scientific methods to the natural world. The evolution of all the organisms that live on earth today from ancestors that lived in the past is at the core of genetics, biochemistry, neurobiology, physiology, ecology, and other biological disciplines. It helps to explain the emergence of new infectious diseases, the development of antibiotic resistance in bacteria, the agricultural relationships among wild and domestic plants and animals, the composition of the earth's atmosphere, the molecular machinery of the cell, the similarities between human beings and other primates, and countless other features of the biological and physical world. As the great geneticist and evolutionist Theodosius Dobzhansky wrote in 1973, quote, Nothing in biology makes sense except in light of evolution, unquote.

MR. WALCZAK

Do you agree with that, Dr. Miller?

DR. MILLER

I agree with that wholeheartedly.

EXT. FEDERAL BUILDING, LOW FLOOR FRONT - AFTERNOON

Broadcasting Reporters and others Media Crew is crowd around as the first day... Plaintiffs Counsel, marching together as the famous shoot from *The Right Stuff* film toward confidants to the Ronald Regan Federal Building.

FEMALE NEWSCASTER (V.O.)

Today in afternoon, and after to hear the last testimony in the Dover's trial, Judge Jones has announced that his resolution on this important case would be promptly released before the current year had finish yet.

INT. FEDERAL BUILDING, COURTROOM 2 - DAY (DAY 21/PM SESSION)

Mr. Rothschild Closing Arguments...

MR. ROTHSCHILD

'What am I supposed to tolerate? A small encroachment on my First Amendment rights? Well, I'm not going to. I think this is clear what these people have done, and it outrages me.' That's a statement of one citizen of Dover, Fred Callahan, standing up to the wedge that has been driven into his community and his daughter's high school by the Dover School Board's anti-evolution, pro-intelligent design policy.

The strategy that the Discovery Institute announced in its Wedge document for promoting theistic and Christian science and addressing cultural conditions that it disagrees with is to denigrate evolution and promote supernatural intelligent design as a competing theory.

This is the Discovery Institute that advised both William Buckingham and Alan Bonsell before the board voted to change the biology curriculum. This is the Discovery Institute the defendants' experts Michael Behe and Scott Minnich proudly associate with, along with intelligent design leaders William Dembski, Paul Nelson, Jonathan Wells, Stephen Meyer, Nancy Pearcey, and Phillip Johnson.

MR. ROTHSCHILD

This group's strategy of Christian apologetics and cultural renewal includes the integration of intelligent design into public school science curriculum, which is now on trial in this courtroom. Dover is now the thin edge of the wedge.

The record is overwhelming that board members were discussing creationism at the meetings in June of 2004. Two separate newspaper reporters, Heidi Bernhard-Bubb and Joe Maldonado, reported this in articles about the meeting which they confirmed in sworn testimony in this court. Around the time of those June meetings, Mr. Buckingham received materials and guidance from the Discovery Institute, the sponsors of theistic Christian science. Their only outside input in favor of Pandas was a recommendation from Mr. Thompson of the Thomas More Law Center, a law firm with no known scientific expertise. What these board members are doing then, knowingly, is requiring administrators or teachers to tell the students, go read that book with the faulty science. After that, intelligent design became the label for the board's desire to present creationism.

And, of course, we saw Mr. Buckingham talk about creationism on the tape of the Fox 43 interview using language almost identical to the words attributed to him by newspaper reporters covering the June, 2004 board meetings.

His explanation that he misspoke the word 'creationism' because it was being used in news articles, which he had just previously testified he had not read, was, frankly, incredible. We all watched that tape. And per Mr. Linker's

MR. ROTHSCHILD
suggestion that all the kids like
movies, I'd like to show it one
more time...

Mr. Rothschild pointing to large screen, where a fragment of
Channel Fox 43 NEWSCLIP shows Mr. Buckingham.

MR. BUCKINGHAM
(at the newsclip)
My opinion that it's okay to teach
Darwin, but you have to balance it
with something else, such as
creationism.

MR. ROTHSCHILD (CONT'D)
... That was no deer in the
headlights. That deer was wearing
shades and was totally at ease.

The board's behavior mimics the
intelligent design movement at
large. The Dover board discussed
teaching creationism, switched to
the term 'intelligent design' to
carry out the same objective, and
then pretended they had never
talked about creationism.

Consider the amazing example that
Ken Miller gave. Evolutionary
biologists were confronted with the
fact that we humans have two fewer
chromosomes than chimpanzees, the
creatures hypothesized to be our
closest living ancestors based on
molecular evidence and homology.
Evolutionary biologists didn't sit
back and tell creationists to
figure out this problem. They
rolled up their sleeves, tackled it
themselves, and they figured it
out. That's real science.

And, in fact, the common ancestry
of chimpanzees and humans is real
science. It's the real science that
William Buckingham and Alan Bonsell
and all their fellow board members
who voted for the change to the
curriculum made sure that the
students of Dover would never hear.

MR. ROTHSCHILD (CONT'D)

Make no mistake about it, William Buckingham was determined that Dover students would not be taught anything that conflicts with the special creation of humans, no mural, no monkeys to man, no Darwin's Descent of man, his wife's sermon from Genesis. This was all focused on protecting the biblical proposition that man was specially created by God.

Your Honor, you may remember Cindy Sneath's testimony about her 7-year-old son Griffin who is fascinated by science. This board is telling Griffin and children like him that scientists are just tricking you. It's telling students like Griffin the same thing Mr. Buckingham told Max Pell, don't go off to college or you'll just be brainwashed, don't research the theory of evolution.

How dare they. How dare they stifle these children's education, how dare they restrict their opportunities, how dare they place a ceiling on their aspirations and on their dreams. Griffin Sneath can become anything right now. He could become a science teacher like Bert Spahr or Jen Miller or Bryan Rehm or Steven Stough turning students on to the wonders of the natural world and the satisfaction of scientific discovery, perhaps in Dover or perhaps some other lucky community.

He could become a college professor and renowned scientist like Ken Miller or Kevin Padian. He might solve mysteries about the immune system because he refused to quit. He might even figure out something that changes the whole world like Charles Darwin.

This board did not act to improve science education. It took one area

MR. ROTHSCHILD (CONT'D)

of the science curriculum that has historically been the object of religiously motivated opposition and molded it to their particular religious viewpoints.

Mr. Buckingham said that separation of church and state is a myth, and then he acted that way. Mr. Buckingham and his fellow board members wanted religion in the public schools as an assertion of their rights as Christians. But Christianity and all religious exercise have thrived in this country precisely because of the ingenious system erected by our founders which protects religious belief from intervention by government.

The law requires that government not impose its religious beliefs on citizens, not because religion is disfavored or unimportant, because it is so important to so many of us and because we hold a wide variety of religious beliefs, not just one.

Lead Plaintiff TAMMY J. KITZMILLER, an attractive blonde, is seated beside to her daughter, Jessica Kitzmiller within the audience. Mr. Rothschild sights toward them.

MR. ROTHSCHILD (CONT'D)

It's ironic that this case is being decided in Pennsylvania in a case brought by a plaintiff named Kitzmiller, a good Pennsylvania Dutch name. This colony was founded on religious liberty. For much of the 18th Century, Pennsylvania was the only place under British rule where Catholics could legally worship in public.

In his declaration of rights, William Penn stated, 'All men have a natural and indefeasible right to worship Almighty God according to the dictates of their own consciences. No man can of right be compelled to attend, erect, or

MR. ROTHSCHILD (CONT'D)
support any place of worship or to
maintain any ministry against his
consent. No human authority can, in
any case whatever, control or
interfere with the rights of
conscience, and no preference shall
ever be given by law to any
religious establishment or modes of
worship.'

In defiance of these principles
which have served this state and
this country so well, this board
imposed their religious views on
the students in Dover High School
and the Dover community. You have
met the parents who have brought
this lawsuit. The love and respect
they have for their children
spilled out of that witness stand
and filled this courtroom.

They don't need Alan Bonsell,
William Buckingham, Heather Geesey,
Jane Cleaver, and Sheila Harkins to
teach their children right from
wrong. They did not agree that this
board could commandeer the
religious education of their
children, and the Constitutions of
this country and this Commonwealth
do not permit it. Thank you, Your
Honor.

THE COURT

All right. As we conclude this
matter then, I'd like to make just
several comments. And we will not,
as we said, close the record
formally for several weeks, but at
least this concludes the taking of
testimony in the case.

I must note that at no time during
this trial, this very long trial,
did I have to admonish anyone in
the courtroom. I am struck by the
solemnity, the dignity, the
appropriateness that all of you
had, and I'm talking about parties
and spectators. And I appreciate
that deeply. It was befitting a

THE COURT
court of law where important issues
are being discussed, and I thank
you again for that.

And last but not least, let me say
a word to counsel. I will say to
all of you that watching you during
this trial, every single one of
you, made me aware of why I became
a lawyer...

(seeing to the Plaintiff
Counsel, thereafter to the
Defendant Counsel)

... and why I became a judge. Your
advocacy was so impressive to me,
but more than that, your ability to
interact and to act collegiately,
cordially towards each other in the
spirit of cooperation with
yourselves, between yourselves or
among yourselves and the Court.

Fundamentally, it was my distinct
and rare privilege and honor to sit
through this extended trial. I know
that this case is important to the
parties. I'm extremely cognizant of
that. This case has not ended for
me and hard work lies ahead.

And as I said in my dialogue with
counsel, I will endeavor to render
a decision as promptly as I can,
applying the law to the facts as I
find them. I assure you of that,
and I assure you that I will do my
duty in doing so.

Counsel, do you have anything
further before we adjourn these
proceedings? From the plaintiffs?

MR. ROTHSCHILD
No, Your Honor. Thank you.

THE COURT
From the defendants?

PATRICK T. GILLEN, at 40's, thin brunette of shot hair, with
a long face, stands up so dignified and grave.

MR. GILLEN

Your Honor, I have one question, and that's this: By my reckoning, this is the 40th day since the trial began and tonight will be the 40th night, and I would like to know if you did that on purpose.

THE COURT

Mr. Gillen, that is an interesting coincidence, but it was not by design.

From the proceedings transcript: (Laughter and applause.)

CROSSFADE TO:

TITLE CARD:

From the Memorandum Opinion of U.S. District Judge John E. Jones, III on *Kitzmilller v. Dover Area School District*.

December 20, 2005.

CROSSFADE TO:

INT. UNDEFINED STUDIO - DAY

Diverse tubes of acrylic painting, and brushes into a cup... Near to them are other artist implements...

JUDGE JONES (V.O.)

The concept of intelligent design (hereinafter 'ID'), in its current form, came into existence after the Edwards case was decided in 1987...

Wearing a leisured old, spotted t-shirt, a young, and beauty ARTIST works on an ample canvas, based on a sketch that hold at her hand... She's crafted and humanoid figure...

JUDGE JONES (V.O.)(CONT'D)

... For the reasons that follow, we conclude that the religious nature of ID would be readily apparent to an objective observer, adult or child.

EXT. PEEPER HAMILTON LLP, PHILADELPHIA OFFICE - MIDDAY

Mr. Rothschild hugs Mr. Harvey. Thereafter both have a brief exchange. A FEMALE ASSISTANT, carrying a couple of champagne glasses give them to the lawyers... Then remaining personnel approaches with their glasses... A toast takes place...

JUDGE JONES (V.O.)(CONT'D)

A significant aspect of the ID movement is that despite Defendants' protestations to the contrary, it describes ID as a religious argument. In that vein, the writings of leading ID proponents reveal that the designer postulated by their argument is the God of Christianity.

EXT. FEDERAL BUILDING, LOW FLOOR FRONT - AFTERNOON

Before the eagle sculpture, NICK MATZKE, at 30's, child-like fat man on suit and holding Prof. Steve Steve is interviewed by Lauri Lebo, which had a notebook. Both chat gleefully...

JUDGE JONES (V.O.)(CONT'D)

The facts of this case makes it abundantly clear that the Board's ID Policy violates the Establishment Clause...

INT/EXT. JUDGE JONES' HOME - NIGHT

Judge Jones takes sight outdoor through a window by slightly apart a curtain... He seems concerned. At the street federal marshals surround the block... One of them pays attention to a couple of persons that pass by the corner, suspicious, and as shadows before to disappear behind a near house...

JUDGE JONES (V.O.)(CONT'D)

... In making this determination, we have addressed the seminal question of whether ID is science. We have concluded that it is not, and moreover that ID cannot uncouple itself from its creationist, and thus religious, antecedents.

EXT. UNDEFINED HIGH SCHOOL, PLAYGROUND - MIDDAY

ANGLE ON: The American Flag... At spotted groups of students they talk, seated or walking... Meanwhile, walking near to a building, a beauty BLONDE STUDENT, of green eyes hears music by audiphones, and, suddenly, takes these partially apart... Then turn to the building's wall...

JUDGE JONES (V.O.)(CONT'D)

The breathtaking inanity of the Board's decision is evident when considered against the factual backdrop which has now been fully revealed through this trial. The students, parents, and teachers of the Dover Area School District deserved better than to be dragged into this legal maelstrom, with its resulting utter waste of monetary and personal resources.

EXT. AFRICAN SAVANNA - DAY (FANTASY SEQUENCE)

A short dry grass plain... Near to a forest spot a huge tree grow at the border... From its branches, jumps a specimen of *Ardipithecus ramidus*, one chimpanzee-like critter which runs bipedal at low speed almost erected... Afterwards to passing behind a tree an *Australopithecus anamensis* emerges...

To the latter follows an *Au. Afarensis*... Thereafter this is replaced by an *Au. Africanus*... Then there appeared a couple of running species of *Homo* genus, more human-like, erect and at more speed running... *H. rudolfensis* and *H. habilis*...

At distance at ground seated trio of *Paranthropus* specimens, each represent different species: *P. aethiopicus*, *P. boisei*, and *P. robustus* contemplate the *Homo* specimens run so far... Then the gorilla-like *P. robustus* stands up, defiantly...

Now more as modern humans, run faster, the specimens of *Homo* genus *H. ergaster*, and *H. erectus* go throughout the plain... These're surpassed by *H. antecessor*, *H. heidelbergensis*, and *H. neanderthalensis*...

Faster as an athlete, an African male, an *H. sapiens sapiens* quickly surpassed the previous *Homo* species... Also a single and isolated *H. floresiensis*, of slow running, half-sized in comparison to *H. sapiens sapiens*... Now running alone... The sun seems that found with him at the horizon at sunset...

EXT. UNDEFINED HIGH SCHOOL, PLAYGROUND - MIDDAY

Blonde Student backs her audiphones at ears. Sights straight to her... Left behind at the wall a mural... That depicting, in black-and-white, THE MARCH OF PROGRESS...

ZOOM OUT: From MEDIUM SHOT to LONG SHOT of THE MURAL...

CROSSFADE TO:

OVER BLACK SCREEN:

SUPERIMPOSE:

In November 8, 2005, four days after the trial proceedings had finished, the Dover CARES coalition won the eight open DASD board seats, replacing the last board members that favored the inclusion of ID into biology curriculum.

CROSSFADE TO:

SUPERIMPOSE:

In February 22, 2006, U.S. District Judge John E. Jones, III order that each plaintiff shall be awarding \$1.00 in nominal damages, and awarding \$2,067,226.00 for attorneys' feeds and expenses. By a separate agreement, Plaintiffs agreed to accept only \$1,000,000.00 in fees.

CROSSFADE TO:

SUPERIMPOSE:

Further to Judge Jones' ruling on *Kitzmiller v. Dover Area School District*, none federal lawsuit has filed on ID at the United States of America...

FADE OUT.

THE END