

REATION SCIEN

Though his mother's family was strong in the Church of Christ and his great-grandfather actually authored a seven volume authoritative Bible commentary still used today (Zerr's), Graffin's parents broke with family tradition and raised Greg away from the church. Graffin's band Bad Religion has been known for its critical views of religions (especially Christianity) and its preference for evolution. Graffin's interests in evolution led him to UCLA, where he carned a Bachelor's degree in Anthropology and a Master's in Geology. He's currently finishing his Doctoral degree in Biology at Cornell University, where he also does some teaching. In the left corner, Bill Hoesch, a member of the Institute for Creation Research in San

the Institute for Creation Research in San Diego, CA. A donations-based group, ICR is a Diego, C.A. A donations-based group, ICR is a Christian organization that argues scientifically that life is not random, but rather intelligently designed. As a non-Christian, Hoeseh studied evolution at the University of Colorado where he earned a Bachelor's in Geology. Then he worked as a geologist in the oil industry for years before becoming a Christian. Hoeseh later earned a Master's at the Institute for Creation Research and remains a full-time staff

member to this day.

Our referee is Hypno editor David Jenison, who ironically almost failed his high school biology class.

"That's a good question," says Hoeseh,
"because there are certainly a lot of
earicatures made about creationists. Number
one is that the only reason people believe in
creation is because it's written in the Bible.
We feel there is good evidence in nature that
surgeous design." Number suggests design.

suggests design."
Graffin responds, "I'm curious, what evidence in nature is better understood as being designed by something intelligent?"
"The DNA genetic code on a human being," answers Hoeseh. "Watson and Crick discovered that it actually was a code and represented information stored on the molecule. In other words, the code did not arise from the earbon and oxygen and nitrogen molecules of which it's composed. The source for the information had to be exogenos to the molecule itself. Why? exogenos to the molecule itself. Why:

Because it represents a coded language.

"Evolution is like opening a book and saying the ink molecules happened to arrange themselves in a funny pattern on the page. That's how the code originated, and even though it's a code, it really happened by a random process. I'm sure you'd agree that's convolute nonsense."

random process. I'm sure you'd agree that's complete nonsense."

"I do agree," affirms Graffin.

"When you recognize an arbitrary code, you automatically attribute it to an intelligent source. Why? Because your computer can decipher the code, and you can assume the person who computed the code in the first place had a similar code. The origin of information demands intelligence."

"That's an interesting supposition," says

"That's an interesting supposition," says Graffin, "but in this case, I think intelligence is being mistaken as... if you have enough is being mistaken as. . . if you have enough time and random processes, you can come up with some incredibly intricate systems. I think that's what happened in DNA. Given the length of time these molecules have been around, there have been some pretty fantastic combinations that have been selected against. That selection process should not be looked at as driven by intelligence, but as something that happened



In the right corner, Freg Graffin, lead singer for the punk band Bad

ause certain combinations work and some on't. That of course leads us to the next scussion, and that's whether you agree that the earth is as old as people say." Hoeseh responds, "Before we get into evidence of an ancient earth, I think we need

question whether time even works in your layor if you're trying to develop an ornate ystem containing information. I would refue that it works against you. When you argue that it works against you. W look at your standard origin of life experiments with the methane and CO2 and the water vapor, the rate of break up for these molecules exceeds the rate at which they're building up. The more complex a bio-molecule is, the more tendency it has to be enstable."

"That's definitely true," says Graffin,
"Even if there was some kind of
echanism by which a bio-molecule could ecome more complex over time." Sesch continues, "the more complex it gets. e more

stable it would become. So ermodynamically, your argument shoots

self in the foot.

Evolution works against the gradient of bermodynamies," agrees Graffin.

something for which you won't find much argument. But I don't think that it's any evidence in favor of what you propose. It only says that life should be thought of as separate from inorganic chemistry, and that we should look at life as something special on the planet."
Hoesch remarks, "In the present world,

information is an entity that never, never happens by chance. It's okay for a person to believe it can happen by chance, but the most reasonable conclusion is to confer that intelligence was behind it. That's the prudent yiew, and the radical view is that it happen by time and chance.

Greg, what teachings of creation science tend to bother you?

"Most of what I've heard doesn't rub me the wrong way. The problem is that I find it to be a little bit prescriptive. The duality is what confuses me. They hope to move people to make observations on their own, but it's dependent on some kind of intelligent being that created it all, for which there is no evidence of its existence. Would you argue that the evidence for a creator is the design you see in nature? I don't think that's

evidence. I think the evidence of a creator should come in some other manner.

"What type of evidence would you consider admissible?" asks Hoesch.

'How about an apparition every time you to Jerusalem, or something naive-sounding

like that," responds Graffin.

"Let's look at former-graduate and Cornell professor Carl Sagan," says Hoesch. "He said they need more radio-telescopes because if our space brothers ever turn up out there, we want to have our ears on. We want to receive their communications. Well, what kind of evidence does he consider admissible for whether there's intelligent life out there? He's looking for any kind of a code, any type of a repetitious type of signal. Anything rather than static noise. He's going to know there's an intelligent source as soon as he picks up a coded kind of signal. He's looking for a code, just like the DNA molecule is a

Let's talk about the fossil record. Creationists argue that the lack of intermediary fossils in the strata is a strong argument against evolution.

continued on page 63

TION SCIENCE

continued from page 55

Graffin remarks, "You have to look at the fossil record as a sampling because a very small number of organisms get fossilized. By nature, any time

ou study the fossil record you are not getting a continuous story. That's why it's not a legitimate argument to say there's a lack of intermediary fossils."

"Just the same," says Hoeseh, "it seems to be constant with a

"Just the same," says Hoesch, "it seems to be constant with a creationist world view that creatures reproduce after their own kind. When I look at the fossil record in the Cambrian, I see everything blasting into existence within the same time frame. But they don't have a trace of an ancestor from the phyla that began so abruptly there. That's a very startling confirmation of what a creationist might predict. Darwin said, 'If you don't find these intermediate forms in the fossil record, then rightly reject my theory."

"I think people who look at Darwin as the food of evolution have on

the fossil record, then rightly reject my theory."

"I think people who look at Darwin as the god of evolution have on the biggest binders of all," says Graffin.

"I'm not saying he's the highest authority," responds Hoesch, "but in the paleontology community there was a search for decades for those links. That really did govern a lot of their search. And suddenly it's been abandoned, and they're not concerned with putting forth the positive evidence for macro-change in the fossil record."

Graffin remarks, "It's understandable why people thought in terms of intermediaries, especially in the early days. Look at the fossil record. The rocks way down low seem to have animals without four

record. The rocks way down low seem to have animals without four legs, but if you go high, the animals have four legs. In the middle, the animals have four limbs and flippers for the back limbs. On a coarse level, it's easy to find intermediaries. But I'm not convinced the fossil record can show the fine changes because you're dealing with record can show the fine changes because you're dealing with different rates of evolution that we don't understand. I'm not trying to use it as evidence for evolution. But why is it that the oldest rocks have the most primitive organisms, and the rocks higher up have the most complex? You have a huge burden to explain."

Hoesch quickly refutes, "I-don't think everyone would agree that the eye of the trilobite was a simple type of system. It's incredibly confiscionted."

sophisticated."
"You're right as far as physiology. But you're talking about an

organ, not an organism."

"Okay, let's go to organisms," says Hoesch. "You have fish appearing in the upper Cambrian. Fish are vertebrae's, and they're "Yeah, but they don't build freeways," says Graffin "Huh?" complex organisms.

You don't find any evidence of culture or social being that you do find higher up.

In fact, you don't find anything remotely human until you get to

"You're right – it's not fair to say highways. But it is fair to say social systems. You find ape-like ancestors very high in the fossil record. You rarely even find organisms that leave debris until the higher up, and by debris I mean what they use in their lifestyles."

Bill, if there is so much evidence for creation, why aren't there more professors at universities adopting the theory?

"The worst thought crime you can commit in scientific circles is to suggest there might be a creator. This has to do with the view that macro-evolution is treated as fact, more for the reason that it appeals philosophically than as a result of empirical evidence."

Greg, what did you find in your college studies that most affirmed your belief in evolution?

"I wouldn't say I believe in evolution. I'd say I use evolution to interpret the evidence I find. To me there still is no clincher, no understanding of the origin. The clincher is yet to come, and I don't know if it will come.

Hoesch comments, "There might be some people who ask, 'If you don't have a very credible mechanism for transforming a fish into a human, what makes this any different from religion?' How do you transform the gill structure of a fish into the bellows of a human lung? Are you just going to say it happened over time, and time performed these miracles. Then in reality, you're believing in a miraculous transformation that's every bit as religious as saying God created man.

Yes, except one has a purpose and the other doesn't," responds Graffin.

"Which has a purpose?"

"The God one," says Graffin. "That to me is counter-productive to understanding the complexity itself. If you say it had a purpose, it doesn't answer the 'why' questions, and the why questions are what compel us to study further. To me, that's the real tragedy of saying there's purpose to the creation."

Hoesch remarks, "I don't see how it adds to the quest of the

inquiry to begin with the assumption that everything is purposeless If this universe is directed by purposeless forces, then what's the

purpose of even inquiring?"
"Because I believe life is a joy to live," says Graffin, "and part of that means using the gift of evolution, the mind. To really get the most out of life, you have to drive yourself, and sometimes it means asking tough questions.

How does each side argue for the extinction of dinosaurs?

Hoesch begins, "The popular theory going today is that the same strata where they disappear is consistent with certain evidences for meteorite impact. That's very interesting, but it doesn't necessary prove a causal relationship."

"Would you agree that dinosaurs don't exist today?" asks Graffin.

"Yes.

"Doesn't that lead you next to a question of why?" continues Graffin. "I don't think they exist either, so that brings up the question why they don't exist. If we are content to say it's because God designed it that way, it doesn't compel us to do anything. Whereas the other interpretation leads us to search the strata and find out why they went extinct because maybe it has some significance to our existence.

"By all means I'm in favor of searching the strata to discover any kind of clues," says Hoesch.

"But not to answer the question why."
"No," continues Hoesch, "I think it's perfectly reasonable to try
and find a cause for why dinosaurs went extinct. That's a reasonable thing to do

"I thought the answer is already clear, and the why's are all encompassed in the fact that there is design and it was meant to be,"

"There is nothing about believing in a creator that constrains your zeal for trying to understand the why questions in a cause and effect way," responds Hoesch.

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"I disagree only because we live in a finite planet," says Graffin,
"and as we approach the finite limit of biological phenomena, there
has to be a next step. To me that next step is asking the why questions.

"I'm not trying to stifle your why questions. I think they're great,"

says Hoesch.
"But a discipline that assumes there is a creator does stifle the why questions," continues Graffin.
"But I don't think you've demonstrated that in the slightest,"

responds Hoesch.

Tell me, where do you stand on the issue of extinction? Extinction is a phenomena we can observe in the present world. But in all of the ecological niches that we've vacated, we've not yet seen a new creature form from a fundamentally different type of

creature."
"We do have evidence in the Hawaiian islands," says Graffin. can find birds on the big island that are virtually identical with birds on islands further out. They're virtually identical except for one small difference in their beak. The reason is because on the small

small difference in their beak. The reason is because on the small island the food that was available required a long beak."
"Natural selection. No problem," says Hoesch.
"You can accept that?" asks Graffin.
"Natural selection really does happen," Hoesch continues. "I can't deny reality. But natural selection can only accept options that are already present on the finches' DNA code. They haven't transmutated from one bird into a fundamentally different type of bird. These are very trivial types of changes in the beak. These transmutated from one bird into a fundamentally different type of bird. These are very trivial types of changes in the beak. These options were already present. But what you haven't explained is the origin of the finch to begin with. The beak doesn't automatically explain the origin of the finch from the non-finch."

"Well," says Graffin. "I'll finish by saying this. The only reason we can talk about God and DNA in the same sentence is because there were people that were driven to ask why. To me that's pretty powerful."

Any last comments?

"I've enjoyed talking with you, Greg," says Hoesch.
"Same here," remarks Graffin. "I think it is a shame that there aren't more creation scientists in the universities. My biggest criticism about science is that it can become prescriptive itself and ostracize certain systems of inquiry.

Special thanks to both Greg Graffin and Bill Hoesch for taking part in this debate. Bad Religion recently released a "best of" album on Epitaph Records and an excellent new studio album on Atlantic. Anyone interested in getting free information from the Institute for Creation Research can call (800) 7GENESIS. Jou can also write to them at P.O. Box 2667, El Cajon, CA 92021, or call directly at (619) 448-0900.