

A Case of Consilience

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"A Case of Consilience" was published in Nova Scotia. It is in dialogue with James Blish's classic, "A Case of Conscience." The first twist is that MacLeod's Christian, Donald MacIntyre, is a Scots Presbyterian, not a Catholic priest. The second is that the intelligent alien is a vast subterranean mycoid—a fungus. MacIntyre's belief motivates him to bring the gospel to the alien. But then there is the alien point of view.

When you say it's Providence that brought you here," said Qasim, "what I hear are two things: it's bad luck, and it's not your fault."

The Rev. Donald MacIntyre, M.A. (Div.), Ph.D., put down his beer can and nodded.

"That's how it sometimes feels," he said. "Easy for you to say, of course."

Qasim snorted. "Easy for anybody! Even a Muslim would have less difficulty here. Let alone a Buddhist or Hindu."

"Do tell," said Donald. "No, what's really galling is that there are millions of *Christians* who would take all this in their stride. Anglicans. Liberals. Catholics. Mormons, for all I know. And my brethren in the, ah, narrower denominations could come up with a dozen different rationalizations before breakfast, all of them heretical did they but know it—which they don't, thank the Lord and their rigid little minds, so their lapses are no doubt forgiven through their sheer ignorance. So it's given to me to wrestle with. Thus

a work of Providence. I think."

"I still don't understand what your problem is, compared to these other Christians."

Donald sighed. "It's a bit hard to explain," he said. "Let's put it this way. You were brought up not to believe in God, but I expect you had quite strong views about the God you didn't believe in. Am I right?"

Qasim nodded. "Of course. Allah was always..." He shrugged. "Part of the background. The default."

"Exactly. Now, how did you feel when you first learned about what Christians believe about the Son of God?"

"It was a long time ago," said Qasim. "I was about eight or nine. In school in Kirkuk. One of my classmates told me, in the course of... well, I am sorry to say in the course of a fight. I shall pass over the details. Enough to say I was quite shocked. It seemed preposterous and offensive. And then I laughed at myself!"

"I can laugh at myself too," said Donald. "But I feel the same way as you did—in my case at the suggestion that the Son was not unique, that He took on other forms, and so forth. I can hardly even say such things. I literally shudder. But I can't accept, either, that He has no meaning beyond Earth. So what are we to make of rational beings who are not men, and who may be sinners?"

"Perhaps they are left outside," said Qasim. "Like most people are, if I understand your doctrines."

Donald flinched. "That's not what they say, and in any case, such a question is not for me to decide. I'm perplexed."

He leaned back in the seat and stared gloomily at the empty can, and then at the amused, sympathetic eyes of the friendly scoffer to whom he had found he could open up more than to the believers on the Station.

Qasim stood up. "Well, thank God I'm an atheist, that's all I can say."

He had said it often enough.

"God and Bush," said Donald. This taunt, too, was not on its first outing. Attributing to the late ex-President the escalating decades-long cascade of unintended consequences that had annexed Iraq to the EU and Iran to China was probably unfair, but less so than blaming it on God. Qasim raised a mocking index finger in response.

"God and Bush! And what are you having, Donald?"

"Can of Export."

"Narrow it down, padre. They're all export here."

"Aren't we all," said Donald. "Tennent's, then. And a shot of single malt on the side, if you don't mind. Whatever's going."

As Qasim made his way through the crowd to the bar, Donald reflected that his friend was likely no more off-duty than he was. A chaplain and an intelligence officer could both relax in identical olive T-shirts and chinos, but vigilance and habit were less readily shrugged off than dress-codes. The Kurdish colonel still now and again called his service the *mukhabarat*. It was one of his running gags, along with the one about electronics and electrodes. And the one about extra-terrestrial intelligence. And the one about... yes, for running gags Qasim was your man.

As I am for gloomy reflections, Donald thought. Sadness, *tristia*, had been one of the original seven deadly sins. Which probably meant every Scottish Presbyterian went straight to hell, or at least to a very damp purgatory, if the Catholics were right. If the Catholics were right! After three hundred and seventeen days in the Extra-Terrestrial Contact Station, this was among the least heretical of the thoughts Donald MacIntyre was willing to countenance.

Qasim came back with the passing cure, and lasting bane, of the Scottish sin; and with what might have been a more dependably cheering mood-lifter: a gripe about his own problems. Problems which, as Donald listened to them, seemed more and more to resemble his own.

"How am I supposed to tell if an underground fungoid a hundred meters across that communicates by chemical gradients is feeding us false information? Or if an operating system written by an ET AI is a trojan? Brussels still expects files on all of them, when we don't even know how many civs we're dealing with. Bloody hell, Donald, pardon my English, there's one of the buggers we only suspect is out there because everyone comes back from its alleged home planet with weird dreams." Qasim cocked a black eyebrow. "Maybe I shouldn't be telling you that one."

"I've heard about the dreams," said Donald. "In a different context." He sighed. "It's a bit hard to explain to some people that I don't take confession."

"Confessions are not to be relied upon," Qasim said, looking somewhere else. "Anyway... what I would have to confess, myself, is that the Etcetera Station is a bit out of its depth. We are applying concepts outside their context."

"Now *that*," said Donald with some bitterness, "is a suspicion I do my best to resist."

It was one the Church had always resisted, a temptation dangled in different forms down the ages. As

soon as the faith had settled on its view of one challenge, another had come along. In the Carpenter's workshop there were many clue-sticks, and the whacks had seldom ceased for long. In the beginning, right there in the Letters, you could see the struggle against heresies spawned by Greek metaphysics and Roman mysticism. Barely had the books snapped shut on Arius when Rome had crashed. Then the Muslim invasions. The split between the Eastern and Western churches, Christendom cloven on a lemma. Then the discovery of the New World, and a new understanding of the scope and grip of the great, ancient religions of the Old. The Reformation. The racialist heresy. The age of the Earth. Biblical criticism. Darwin. The twentieth century had brought the expanding universe, the gene, the unconscious—how quaint the controversies over these now seemed! Genetic engineering, human-animal chimerae, artificial intelligence: in Donald's own lifetime he'd seen Synods, Assemblies and Curia debate them and come to a Christian near-consensus acceptable to all but the lunatic—no, he must be charitable—the fundamentalist fringe.

And then, once more, just when the dust had settled, along had come—predictable as a planet, unpredicted like a comet—another orb in God's great orrery of education, or shell in the Adversary's arsenal of error-mongery, the greatest challenge of all—alien intelligent life. It was not one that had been altogether unexpected. Scholastics had debated the plurality of worlds. The Anglican C. S. Lewis had considered it in science fiction; the agnostic Blish had treated it with a literally Jesuitical subtlety. The Christian poet Alice Meynell had speculated on alien gospels; the godless ranter MacDiarmid had hymned the Innumerable Christ. In the controversies over the new great discovery, all these literary precedents had been resurrected and dissected. They pained Donald to the quick. Well-intended, pious, sincere in their seeking they might be; or skeptical and satirical; it mattered not: they were all mockeries. There had been only one Incarnation; only one sufficient sacrifice. If the Reformation had meant anything at all, it meant that. To his ancestors Donald might have seemed heinously pliant in far too much, but like them he was not to be moved from the rock. In the matter of theological science fiction he preferred the honest warning of the secular humanist Harrison. *Tell it not in Gath, publish it not in the streets of Ashkelon...*

Donald left the messroom after his next round and walked to his quarters. The corridor's topology was as weird as anything on the ETC Station. A human-built space habitat parked inside an alien-built wormhole nexus could hardly be otherwise. The station's spin didn't dislodge the wormhole mouths, which remained attached to the same points on the outside of the hull. As a side-effect, the corridor's concave curve felt and looked convex. At the near ends of stubby branch corridors, small groups of scientists and technicians toiled on their night-shift tasks. At the far ends, a few meters away, thick glass plates with embedded airlocks looked out on to planetary surfaces and sub-surfaces, ocean depths, tropospheric layers, habitat interiors, virtual reality interfaces, and apparently vacant spaces backdropped with distant starfields. About the last, it was an open question whether the putatively present alien minds were invisible inhabitants of the adjacent vacuum, or more disturbingly, some vast process going on in and among the stars themselves. The number of portals was uncountable. There were never more than about five hundred, but the total changed with every count. As the station had been designed and built with exactly three hundred interface corridors, this variability was not comfortable to contemplate. But that the station's structure itself had somehow become imbricated with the space-time tangle outside it had become an accepted—if not precisely an acknowledged—fact. It received a back-handed

recognition in the station's nickname: the Etcetera Station.

Use of that monicker, like much else, was censored out of messages home. The Station was an EU military outpost, and little more than its existence, out beyond the orbit of Neptune, had been revealed. Donald MacIntyre, in his second year of military service as a conscript chaplain, had been as surprised to find himself here as his new parishioners were to discover his affiliation. His number had come up in the random allocation of clergy from the list of religions recognized by the EU Act of Toleration—the one that had banned Scientology, the Unification Church, the Wahabi sect and, by some drafting or translation error, Unitarian Universalism—but to a minister of the Church of Scotland, there could in all conscience be no such thing as chance. He had been sent here for a purpose.

"The man in black thinks he's on a mission from God," said Qasim.

"What?" Major Bernstein looked up from her interface, blinking.

"Here." Qasim tapped the desktop, transferring a file from his finger.

"What's this?"

"His private notes."

The major frowned. She didn't like Qasim. She didn't like spying on the troops. She didn't care who knew it. Qasim knew all this. So did Brussels. She didn't know that.

"What are your grounds?" she asked.

"He spoke a little wildly in the mess last night."

"Heaven help us all, in that case," said the Major.

Qasim said nothing.

"All right." Bernstein tabbed through the notes, skimming to the first passage Qasim had highlighted.

" 'Worst first,' " she read out. " 'The undetectable entities. No coherent communication. (Worst case: try exorcism???) Next: colonial organisms. Mycoidal. Translations speculative. Molecular grammar. Query their concept of person-hood. Also of responsibility. If this can be established: rational nature. Fallen nature. If they have a moral code that they do not live up to? Any existing religious concepts? Next: discrete animalia. Opposite danger here: anthropomorphism. (Cf. Dominican AI mission fiasco.) Conclusion: use mycoids as test case to establish consilience.'" She blinked the script away, and stared at Qasim. "Well? What's the harm in that?"

"He's been hanging around the team working on the my-coids. If you read on, you'll find he intends to preach Christianity to them."

"To the scientists?"

"To the mycoids."

"Oh!" Major Bernstein laughed. It was a sound that began and ended abruptly, like a fall of broken glass, and felt as cutting. "If he can get *any* message through to them, he'll be doing better than the scientists. And unless you, my overzealous *mukhabaratchik*, can find any evidence that Dr. MacIntyre is sowing religious division in the ranks, practicing rituals involving animal cruelty or non-consensual sexual acts, preaching Market Maoism or New Republicanism or otherwise aiding and abetting the Chinks or the Yanks, I warn you most seriously to not waste your time or mine. Do I make myself quite clear?"

"Entirely, ma'am."

"Dismissed."

I do not what I wish I did.

It was a lot to read into a sequence of successive concentrations of different organic molecules. In the raw transcript it went like this:

<i>Titration</i>	<i>Translation</i>
Indication-marker	THIS
Impulse-summation	MYCOID
Action (general)	DOES
Negation-marker	NOT
Impulse-direction	ACT
Affirmation-marker	[AS] INTENDED [BY]
Impulse-summation	[THIS] MYCOID
Repulsion-marker	[AND THIS] DISGUST[S]
Impulse-summation	[THIS] MYCOID

Donald looked at the print-out and trembled. It was hard not to see it as the first evidence of an alien that knew sin. He well realized, of course, that it could just as well mean something as innocent as / *couldn't help but puke*. But the temptation, if it was a temptation, to read it as an instance of the spirit warring

against the flesh—well, against the slime— was almost irresistible. Donald couldn't help but regard it as a case of consilience, and as no coincidence.

"Is there any way we can respond to this?"

Trepper, the mycoid project team leader, shook his head. "It's very difficult to reproduce the gradients. For us, it's as if... Look, suppose a tree could understand human speech. It tries to respond by growing some twigs and branches so that they rub against each other just so, in the wind. And all we hear are some funny scratching and creaking sounds."

Trees in the wind. Donald gazed past the tables and equipment of the corridor's field lab to the portal that opened on to the mycoids' planet. The view showed a few standing trees, and a lot of fallen logs. The mycoids did something to force the trees' growth and weaken their structure, giving the vast underground mycoid colonies plenty of rotting cellulose to feed on. Far in the distance, across a plain of coppery grass, rose a copse of quite different trees, tall and stately with tapered bulges from the roots to half-way up the trunks. Vane-like projections of stiff leaves sprouted from their sides. Bare branches bristled at their tops. These were the Niven Pines, able to synthesize and store megaliters of volatile and flammable hydrocarbons. At every lightning storm one or other of these trees—the spark carried by some kind of liquid lightning conductor to a drip of fuel-sap at its foot—would roar into flame and rise skyward. Some of them would make it to orbit. No doubt they bore mycoid travelers, but what these clammy astronauts did in space, and whether this improbable arboreal rocketry was the result of natural selection, or of conscious genetic manipulation by the mycoids—or indeed some other alien—was as yet unclear.

In any case, it had been enough to bring the mycoids a place at the table of whatever Galactic Club had set up the wormhole nexus. Perhaps they too had found a wormhole nexus on the edge of their solar system. Perhaps they too had puzzled over the alien intelligences it connected them to. If so, they showed little sign of having learned much. They pulsed their electrophoretically controlled molecular gradients into the soil near the Station's portal, but much of it—even assuming the translations were correct—was about strictly parochial matters. It was as if they weren't interested in communicating with the humans.

Donald determined to make them interested. Besides his pastoral duties—social as well as spiritual—he had an allotted time for scholarship and study, and he devoted that time to the work of the mycoid research team. He did not explain his purpose to the scientists. If the mycoids were sinners, he had an obligation to offer them the chance of salvation. He had no obligation to offer the scientists the temptation to scoff.

Time passed.

The airlock door slammed. Donald stepped through the portal and on to the surface. He walked forward along an already-beaten track across the floor of the copse. Here and there, mushroom-like structures

poked up through the spongy, bluish moss and black leaf-litter. The bulges of their inch-wide caps had a watery transparency that irresistibly suggested that they were the lenses of eyes. No one had as yet dared to pluck a fungus to find out.

A glistening patch of damp mud lay a couple of hundred meters from the station. It occupied a space between the perimeters of two of the underground mycoids, and had become a preferred site for mycolinguistic research. Rainbow ripples of chemical communication between the two sprawling circular beings below stained its surface at regular intervals. Occasional rainstorms washed away the gradients, but they always seeped out again.

Donald stepped up to the edge of the mud and set up the apparatus that the team had devised for a non-intrusive examination of the mycoids' messages: a wide-angle combined digital field microscope and spectroscope. About two meters long, its support frame straddled the patch, above which its camera slowly tracked along. Treading carefully, he planted one trestle, then the other on the far side of the patch, then walked back and laid the tracking rail across them both. He switched on the power pack and the camera began its slow traverse.

There was a small experiment he had been given to perform. It had been done many times before, to no effect. Perhaps this variant would be different. He reached in to his thigh pocket and pulled out a plastic-covered gel disc, about five centimeters across, made from synthesized copies of local mucopolysaccharides. The concentric circles of molecular concentrations that covered it spelled out—the team had hoped—the message. *We wish to communicate. Please respond.*

Donald peeled off the bottom cover and, one knee on a rock and one hand on a fallen log, leaned out over the multicolored mud and laid the gel disc down on a bare dark patch near the middle. He withdrew his hand, peeling back the top cover as he did so, and settled back on his haunches. He stuffed the crumpled wrappings in his pocket and reached in deeper for a second disc: one he'd covertly prepared with a different message.

Resisting the impulse to look over his shoulder, he repeated the operation and stood up.

A voice sounded in his helmet: "Got you!"

Qasim stood a few meters away, glaring at him.

"I beg your pardon," said Donald. "I've done nothing wrong."

"You've placed an unauthorized message on the mud," said Qasim.

"What if I have?" said Donald. "It can do no harm."

"That's not for you to judge," said Qasim.

"Nor for you either!"

"It is," said Qasim. "We don't want anything... ideological or controversial to affect our contact." He looked around. "Come on, Donald, be a sensible chap. There's still time to pick the thing up again. No harm done and no more will be said."

It had been like this, Donald thought, ever since the East India Company: commercial and military interests using and then restricting missionaries.

"I will not do that," he said. "I'll go back with you, but I won't destroy the message."

"Then I'll have to do it," said Qasim. "Please step aside."

Donald stayed where he was. Qasim stepped forward and caught his shoulder. "I'm sorry," he said.

Donald pulled away, and took an involuntary step back. One foot came down in the mud and kept on going down. His leg went in up to the knee. Flailing, he toppled on his back across the tracking rail. The rail cracked in two under the blow from his oxygen tanks. He landed with a huge splash. Both pieces of the rail sank out of sight at once. Donald himself lay, knees crooked, his visor barely above the surface.

"Quicksand," said Qasim, his voice cutting across the alarmed babble from the watching science team. "Don't try to stand or struggle, it'll just make things worse. Lie back with your arms out and stay there. I'll get a rope."

"Okay," said Donald. He peered up through his smeared visor. "Don't be long."

Qasim waved. "Back in seconds, Donald. Hang in there."

The science team talked Donald through the next minute, as Qasim ran for the portal, stepped into the airlock, and grabbed the rope that had already been placed there.

"Okay, Donald, he's just—"

The voice stopped. Static hiss filled the speaker. Donald waited.

"Can anyone hear me?"

No reply.

Five more minutes passed. Nobody was coming. He would have to get himself out. There was no need

to panic. He had five hours' worth of air supply, and no interruption to the portals had ever lasted more than an hour.

Donald swept his arms through the mud to his side, raised them above the mud, flung them out again, and repeated this laborious backstroke many times, until his helmet rested on solid ground. It had taken him half an hour to move a couple of meters. He rested for a few minutes, gasping, then reached behind him and scrabbled for something to hold. Digging his fingers into the soil, kicking now with his feet—still deep in the mud—he began to lever himself up and heave his shoulders out of the bog. He got as much as the upper quarter of his body out when the ground turned to liquid under his elbows. His head fell back, and around it the mud splashed again. He made another effort at swimming along the top of the mud on his back. His arms met less resistance. Around him the sludge turned to slurry. Water welled up, and large bubbles of gas popped all across the widening quagmire.

He began to sink. He swung his arms, kicked his legs hard, and the increasingly liquid mass closed over his visor. Writhing, panicking now, he sank into utter darkness. His feet touched bottom. His hands, stretched above his head, were now well below the surface. He leaned forward with an immense effort and tried to place one foot in front of the other. If he had to, he would walk out of this. Barely had he completed a step when he found the resistance of the wet soil increase. It set almost solid around him. He was stuck.

Donald took some slow, deep breaths. Less than an hour had passed. Fifty minutes. Fifty-five. At any moment his rescuers would come for him.

They didn't. For four more hours he stood there in the dark. As each hour passed he realized with increasing certainty that the portal had not reopened. He wondered, almost idly, if that had anything to do with his own intrusion into the bog. He wondered, with some anguish, whether his illicit message had been destroyed, unread, as he fell in on top of it.

The anguish passed. What had happened to the message, and what happened to him, was in a quite ultimate sense not his problem. The parable of the sower was as clear as the great commission itself. He had been in the path of duty. He had proclaimed, to the best of his ability, the truth. This was what he had been sent to do. No guarantee had been given that he would be successful. He would not be the first, nor the last, missionary whose mission was to all human reckoning futile. The thought saddened him, but did not disturb him. In that sense, if none other, his feet were on a rock.

He prayed, he shouted, he thought, he wept, he prayed again, and he died.

At last! The aliens had sent a communications package! After almost a year of low-bandwidth disturbances of the air and the electromagnetic spectrum, from which little sense could be extracted, and many days of dropping tiny messages of blurry resolution and trivial import, they had finally, *finally* sent something one could get one's filaments into!

The mycoid sent long tendrils around the package, infiltrating its pores and cracks. It synthesized acids that worked their way through any weak points in its fabric. Within hours it had penetrated the wrapping and begun a riotous, joyous exploration of the vast library of information within. The mycoid had in its own genetic library billions of years of accumulated experience in absorbing information from organisms of every kind: plant or animal, mycoid or bacterium. It could relate the structure of a central nervous system to any semantic or semiotic content it had associated with the organism. It probed cavities, investigated long transportation tubes, traced networks of neurons and found its way to the approximately globular sub-package where the information was most rich. It dissolved here, embalmed there, dissected and investigated everywhere. In an inner wrapping it found a small object made from multiple mats of cellulose fiber, each layer impregnated with carbon-based markings. The mycoid stored these codes with the rest. Seasons and years passed. A complete transcription of the alien package, of its neural structures and genetic codes, was eventually read off.

Then the work of translation and interpretation, shared out across all the mycoids of the continent, began.

It took a long time, but the mycoids had all the time in the world. They had no more need—for the moment—to communicate with the aliens, now that they had this vast resource of information. They, or their ancestors, had done this many times before, under many suns.

They understood the alien, and they understood the strange story that had shaped so many of the connections in its nervous system. They interpreted the carbon marks on the cellulose mats. In their own vast minds they reconstructed the scenes of alien life, as they had done with everything that fell their way, from the grass and the insects to the trees. They had what a human might have called a vivid imagination. They had, after all, little else. Some of them found the story to be:

Affirmation-marker	GOOD
Information-marker	NEWS

Spores spread it to the space-going trees, and thence to the wormhole network, and thence to countless worlds. Not quite all the seeds fell on stony ground.