

Chapter 1

Tuesday: Castel Gandolfo, Italy

Brother Frank Bootsma, rotund and fully bearded, was the epitome of what those who practiced the Catholic faith expected in a Jesuit priest. He both looked and acted like one. Although he wore either the casual clothing styles of men his age or a simple Roman collar tab shirt and dark pants when in non-liturgical settings, he sometimes wished he lived in the first half of the twentieth century when Jesuit brothers still wore a cassock. It seemed more fitting and much more comfortable, though a cassock on a hot day like today could constitute a penance. It would, however, hide a lot of sins. A loosely draped gown allowed him to eat to his heart's content without concern that his extended stomach would suffer discomfort from a too-tight belt.

That wish was proving true once again. He was enjoying another excellent *Saltimbocca alla romana* at the Taverna dei Cacciatori, a little trattoria 200 yards away from the summer residence of the Pope, and he was not about to waste a single portion of it. He tore a small piece off a brown *pane paysane* and circled his plate until nothing was left of the delicious sauce, then placed it carefully into his mouth, savoring every flavorful moment. Finally, pushing the plate away, he reached for the goblet of a matching local *vino agricola* and downed it in a couple gulps. Squelching the burp that would surely call attention to himself, he patted his beard with a crumpled napkin and prepared to leave.

He was satisfied. Lunch was always better than dinner. Portions were smaller, but for some reason, the same meal tasted so much better than in the evening hours. He wished he

could stay longer to enjoy the ambiance of the establishment and digest lunch with a small *grappa*, but he had work to do. Regrettably, he didn't have time for the *espresso* either. He loved eating fine food, but not even a superb repast compared to the satisfaction he derived from his work, and this was one of his last days at the Papal palace. Soon, he would be taking the flight from the Fiumicino Airport to the United States.

Brother Frank placed several euros on the table and nodded his thanks to the proprietor on his way to the door. He gestured an okay sign at the waiter who had known him for years. He never asked for the bill, and it was never presented to him, but he always tipped generously. "*Arrivederci*, Emilio," he said, sounding almost Italian. He waved back at the three smiling, mid-fifties women who waved goodbye to him from the kitchen window. They knew how much he enjoyed their Italian dishes.

Once outside, he turned right and trudged uphill toward the Papal palace at the end of the narrow cobblestone street. Puffing from the exertion so soon after his meal, he chastised himself for being so out-of-shape. After all, he was only thirty-seven years old. Although he had spent considerable time in the sleepy village over the years, he never failed to enjoy its seclusion near the edge of *Lago d'Alba*, a quiet lake formed at the base of an extinct volcano. He glanced upward and peered at the dome of the Vatican Observatory, which glistened in the sunlight. Life was good, so good to him.

As he crossed the square to reach the side entrance of the palace, the intensity of the sun's heat fell upon him like a lead coat. He felt the perspiration roll off his forehead onto his nose and into his eyes. He rubbed it away with a hasty scrub from a handkerchief he pulled from his trousers pocket, glad he would soon cool off in the confines of his work environment.

A locked iron door gave access to the apartments of the *Guarda Svizzera*, the *Direttore di Specola Vaticana*, and the rooms of the other members of the Vatican Observatory. No

other keys were provided to anyone. Only someone from the inside could open the door. Normally, both visitors and residents entered through the thick wooden doors of the main entrance just beyond the inner courtyard. But today was different. The Pope, who spent his summers in Castel Gandolfo, was expected in a few days. Security was stricter.

Brother Frank buzzed the Swiss Guard and peered directly into the tiny security camera to make his identification easier. He saw a flashing green light inside the camera box and knew not to expect eighty-four-year-old Father Gabriel Bonomelli to come to the door. The former *Direttore di Specola Vaticano* was the only one allowed to live in the castle other than the Pope and his modest entourage when they came during the unbearably hot summers of Rome, but the man never left the premises for lunch and always took a nap in his private quarters. “A Jesuit never retires. You serve as long as you live,” he often said.

A Swiss Guard, dressed down because the Pope was not yet resident, opened the door and saluted him.

Frank bent his head to enter through the doorway to avoid bumping it. The door was smaller than most entrances, built centuries ago for much shorter men. He waited for the guard to relock the door and studied his modestly colored fifteenth-century-style blue culottes, matching vest, simple white collar, and black beret. He controlled the twitching of a smile at the sight of the young man’s face, pale from lack of sunlight, as all guard watches were conducted in the shade. He never commented on the phenomenon but had always found it amusing. As he watched the guard, he thought he detected the aroma of *Geschnetzeltes*, their favorite dish of sliced veal.

The guard closed the door with a bang. There was no way to shut an iron door quietly. As soon as he had pocketed the key, he turned and strode through the building without saying a word. Frank would have enjoyed chatting about anything, but he learned over the past several months that the guards were rarely talkative. Their Italian wasn’t perfect, but

understandable. Amongst themselves, however, they preferred to speak *Schweitzer Deutsch*. This guard was especially tightlipped. Maybe he had been taken away from his own lunch and was thinking about getting back to it. When he finally headed for his barracks with only a nod in his direction, Frank hustled directly to the museum of meteorites on the first floor.

Because the Castel was also the home of the Pope, these particular meteorites were essentially the most-guarded specimens in the world. Frank could not conduct his research elsewhere because the fragile meteorites could not be transported. That's what made Castel Gandolfo so special for him. Apart from the tranquility, there was the spectacular view on the lake and, of course, the Italian food that seemed to be more honest here than in Rome.

He unlocked the door of the exhibition room—or the “demonstration room,” as he preferred to call it—and stepped into the dark interior, reaching for the button that would switch on the overhead lights. He breathed in the stuffy air that was pronounced ‘suffocating’ by others who found the unventilated room oppressive. But for him, nothing mattered but his work—not even the fact that the room was windowless and unventilated. The twelve-by-fifteen-foot room was lined wall to wall with a series of cabinets containing innumerable wooden drawers, each one housing the world's finest collection of meteorites, numbering well over 1,000. The collection included some very rare stones, dropped to Earth from the earliest history of the solar system. These most precious specimens were displayed in glass exhibit cases. Most of the other meteorites, however, had been placed in plastic bags, tagged, and situated in drawers of various sizes. These much smaller fragments—some weighing less than an ounce—had been discovered in places throughout the world, including India, Brazil, France, Mexico, Ukraine, Somaliland and Japan, in the late 1870s and 1880s.

This was his domain, his collection. He—Brother Frank Bootsma—had expanded the compilation into not only the most valuable, but the largest of its kind in the entire world. As he glanced around the room, the words of one of his professors rang in his ears again. “It is

such a compelling thought that, in our society, we have a strong focus on what we can see and what we can investigate. It is no coincidence that science had the greatest difficulty unveiling the nature and origin of very small microscopic or very large cosmologic matter.”

Frank had decided he had a better chance of extracting secrets by thoroughly investigating this very small lump of matter; no rockets or warp velocities were required. For that reason, he had reserved a special drawer for his most rare and prized meteorites. He was convinced that the contents of the drawer contained mysteries still unknown to man. Mysteries that would ensure that, once again, the Catholic Church would take up her position as the world’s scientific leader—a position she had lost when the segregation of religion and science had been set off by the Enlightenment and narrow-minded persons like Descartes.

As Frank pondered over how different history could have turned out for the Catholic Church, if she had been honest in her goals and had not participated in so many wars and politics, he grew increasingly excited. Four years ago, he had been appointed as curator of the meteorite collection. His selection had been without competition. He knew at that moment that, even though he was just embarking on his career, his studies had been a preparation for the meteorite office located in the Museum of Castel Gandolfo, just fifteen and a half miles southeast of Rome, part of the summer residence of the Pope. The appointment had been a reward for his focused research and his total dedication to explaining the vastness of the cosmos within the Catholic doctrine.

Frank was ordained a Jesuit priest at the rather late age of twenty-five years. He had been raised a Protestant in a middle-class family in Amsterdam, the Netherlands, but for a number of reasons, he had grown discontent with Dutch society in the seventies, especially with the disappearance of religion as the most important source of inspiration. Protestantism as a religion had ceased to be his when he realized the existence of God and His work were rationalized in a grammatical exegesis of the Scripture. His parents tried to talk him out of it

when, a couple of months before graduation, he informed them of his intention to convert to Catholicism and quit his astronomy studies at Amsterdam University.

He accepted it as a sign from God when he learned he could study astronomy at the Vatican Observatory in Rome. He had applied for a special grant offered by the Vatican for members of the Jesuit order interested in the study of astronomy and won the honor based on an outstanding admission thesis. He started all over again, knowing he would acquire a totally different perspective on the subject. Unlike many of his fellow students in Italy, he had kept his birth name. Hesitant to change his identity and probably because he was Dutch, he had the need to remain more of an individual than a servant. This attitude continued when he became an American a few years later; he was proud to be an American, but he could never forget his roots, which were primarily European, partly Dutch, and partly Italian.

Frank had thoroughly enjoyed his college days in Rome and Castel Gandolfo. The climate, the food, and the many inspirational friendships of Jesuit brotherhood made his time in Italy unforgettable. Later, in the United States, his graduate studies in astrophysics at the University of Arizona in Tucson had marked a turning point for him. In addition to earning both a master's and a doctorate degree, he had learned to appreciate the American way of life, in a Jesuit way. He had chosen to be Catholic and to serve the Catholic Church, first out of discontentment, but later because a deeper understanding of the meaning of life changed the way he saw the world.

Now, Frank was fully engaged in the discovery of something totally unexpected . . . something that not only gave his life purpose, but would also bring worldwide recognition to the Church. He slid onto the hard chair at the wooden table worn smooth from decades of use and hastily jotted a few notes on a yellow tablet. He had titled his new research mission his "GOD" project, short for "Grand Overall Design." The exhibition room was his laboratory. Because of its inspiring atmosphere, he preferred to work nowhere else, especially because he

could work in peace and at his own pace there. Nobody was allowed to visit the room without his permission. His notebook PC was connected to the Vatican data server, and he had been granted use of a powerful microscope. And that was enough.

Rising from his chair, Frank pulled open an unmarked drawer and took out a pair of the soft white gloves he used when handling the meteorites. Then, he opened one of the wooden drawers, removed one of the precious “early Galactic” stones, and placed it carefully under the powerful objective lens of the microscope. Making only a slight adjustment, he was able to achieve good resolution at 1,000X. Thankfully, the Vatican provided only the best instruments for scientific research. His hypothesis was that the microstructure of the meteorite represented the early structure of the cosmos and had inclusions from before the Big Bang. It fascinated him that a stone even smaller than a quail egg allowed a sneak preview into the past of our universe as it was billions of years ago.

Reaching behind him to close the drawer, he was surprised when it remained partially ajar. He turned and reopened it, sliding it more carefully shut. Again, it remained partly open. *Hmm*, he thought, *something must be in the way*. He pulled the drawer open again and saw nothing amiss. He jiggled it from side to side. In the process, the entire unit wiggled as though it were no longer attached to the wall. *This has to be fixed immediately*, he decided. He crouched in front of the unit to examine the legs. They appeared to be tightly attached to the cabinet. He ducked his head until his cheek rubbed against the carpet in order to inspect the bottom of the structure. Perhaps something was protruding from the back of a drawer. “Nothing but years of accumulated dust,” he said aloud, brushing the carpet with a few sweeps of his hand.

Unexpectedly, instead of just dust, a piece of the carpet came loose. When he pulled on it, a larger chunk came loose . . . but, strangely, it seemed to be in a perfect square, not at all like a piece of randomly torn aged carpet. “What in the world!” he said. He tugged on the

edge again and a piece at least three feet square pulled free from the wall and thumped between the legs of the cabinet.

He struggled to sit up and then carefully scrutinized the carpet piece in his hands. It was full of dust, but the edges were rather perfect, as though they had been cut with a sharp object, albeit a very long time ago. Standing, he stared at the cabinet and then at those on each side of it. Only if examined closely could anyone discern the slight differences in color.

Tossing the carpet segment onto the table, he reached out to grasp the sides of the cabinet and slowly inched the entire unit away from the wall and toward the center of the room, closer to his working table. Peering behind it, he saw the bare area in the rug. Bending closer, he noticed that it was covered by another more faded layer of carpeting.

“What the hell ...”

Frank inspected the carpet with the eyes of a scientist and discovered the imprint of what looked like a door pushing its frame through the carpet.

Okay, this is interesting, he thought. He hesitated only a few seconds, then dug his fingers into the older carpet and started ripping it off. He needed answers. Thankfully, no one would know he was disturbing a part of Vatican history. He could always replace the carpet piece and push the cabinet back into place. No one would be the wiser.

A minute later, he gasped aloud. *A door!* A door created by some much smaller Italian, perhaps in a previous century, and carefully hidden from curious eyes.

Frank pulled on the carved-out section in the wood that neatly fit the curvature of his fingers. Tugging, he was surprised to see how easily the door opened. He peered into a dark, dank hole that was clearly the beginning of a secret passageway.

Chapter 2

Tuesday: DuPont, Washington D.C.

Sometimes Max didn't open his bedroom drapes for weeks. The light coming through the windows cast reflections on his screen. He preferred his room to be dark, especially when he was kicking ass in a war with other soldiers. Light interfered with his focus. *Call of Duty* was his passion, and he considered things like school, homework, or picking up his room very annoying. Right now, his private sanctuary was littered with clothes, clean and unwashed, school books, and stacks of papers, and he was just fine with it the way it was.

Max was the fourteen-year-old carbon copy of his father, Jacob Burkowski, a radiologist in the Neurology Department at George Washington University Medical Center (GWUMC). The two of them shared the same house, but that was about it. Since his parents were divorced, he pretty much had full authority over his life. Both of his parents were too busy with their own interests to bother with him.

With one hand, Max operated the machine gun, rapidly tapping the spacebar and the cursor. His chin rested on his other hand, which he had planted on the table. Frequently, his eyes fluttered as he fought against his drowsiness. Other than an hour or two of sleep in his bed, he had played the game nonstop for the remainder of the night. He had been fighting a highly successful war until the worst of all possible things happened: his PC had crashed mid-game. His internal memory was totally insufficient to support the video card. He had begged his father many times to replace it with a state-of-the-art circuit, but he always forgot. For

weeks, he had endured increasing episodes of unexpected endings in the midst of his game, but his frustration had finally evolved into anger. Although he had been able to rejoin the competition, it was at a lower level. That was the harsh price he had to pay for accidentally ‘quitting’ in the middle of an attack. Now, he was just a soldier. Somebody else had claimed the title of platoon leader. Their new lieutenant kept on giving him new directions that made no sense to him.

Max preferred to play *Call of Duty* at night. All his friends were online, and that’s when they were available. They were the blue dots on the screen. The red ones were the enemy. He didn’t know them and didn’t want to. Sometimes they had their mikes switched on, and from the sounds of their voices, he guessed they were Russian or something. He could understand their cursing though. They used the same cuss words he did, which was weird.

His dad hadn’t been completely deaf to his requests. He had received a new audio set for his birthday and some high-power sound blasters, which added extremely to the battlefield experience. For now, he used earphones so his dad wouldn’t notice. The graphics were much more advanced in the version he had now, and he had downloaded a pretty expensive photo-edit program for changing the color and texture of the uniforms for his platoon. He’d even written some code to insert new uniforms into the game and shared it with his friends. “Pretty cool,” they’d all agreed.

Of course these changes were invisible for the enemy, since they rested with the client and not the server. He was working with his friends on more serious changes, too, like possibly becoming invisible to the enemy, but this would require breaking into the server. If they could get in without being noticed, he would love to do it, but they weren’t sure if they could mask their IP addresses and become invisible while they committed their first computer crime. So far, they had only downloaded games and movies and shared them. That wasn’t illegal, because everybody did it. And besides, they had been paid for once already.

For some reason, Max glanced at the clock on his computer. *Shit. Almost time for school!* The lieutenant's avatar ordered something again. He was asked to back off, way behind a barn they already had conquered from the Krauts. He said he needed time to give him an important instruction. The commands of his platoon leader weren't making any sense, and it was costing him too much time. He fired one last round and sent a message to his friends. No one replied. Most of them lived near the school and could usually stay in the game longer, but not today for some reason. He promised to log-on again with his cell phone. Speaking of phones, where was it? He searched under the piles of junk on his desk, under the sheets in his bed, and finally located it in his jeans, which he had dumped on the floor in the middle of the night. He returned to the PC and quickly logged off.

After pulling on his jeans, he picked up a sweater from the floor and sniffed it. It smelled okay. He stuffed his arms in the sleeves and yanked it down over his body, all the while cursing the washing machine. The sweater needed to be baggy, and it had shrunk. It was way too short. One day, he would be muscled enough to wear tight sweaters, but for now, he preferred loose-fitting stuff.

Dashing to the bathroom, he took a good look at himself in the dirty mirror over the sink. *God, I look pale.* He splashed some water on his face, hoping he could wash away the hard evidence that he'd stayed up almost all night. He combed his short dark hair and carefully pulled at it before putting a handful of gel in it. It was crucial that it stayed in shape all day.

He rushed down the stairs, taking three at the time, and landed in the kitchen. Pulling open the door of the fridge, he removed the orange juice box and shook it. *Damn. We're out of juice.* With the door still open, he suddenly froze. Something was wrong. It was awfully quiet—too quiet. Normally, he'd hear his dad upstairs going through the motions of getting dressed.

He glanced at the wall clock. It was already after eight o'clock! *I missed the school bus!* He was in deep trouble. He'd been this late once before, and the head master had told him that if it ever happened again, he'd be suspended from school. Why hadn't his dad wakened him? This was not something they agreed on, of course.

Max removed the receiver from the wall phone, punched in the number of the hospital, and reached the head nurse. "This is Max Burkowski, Mrs. Williams. I know my dad is probably busy, but I have to talk to him. It's urgent."

"Of course he's busy, Max. We all are. What is your so-called urgent business about this morning? I'll relay the message to him."

"I prefer to tell my father myself."

"Then you'll have to wait. The doctor is in the middle of a procedure."

Max switched the phone to his other ear and waited. And waited. After several minutes, he heard Mrs. Williams's voice again. "Your father said he's too busy to come to the phone, Max. He wants you to know he called the school this morning. You're evidently suspended for two days. Too many unpardoned absences. You're to report back on Thursday morning . . . on time. Is there anything else?"

"Nope. That's all I need to know. Thanks," he said as normally as possible and hung up.

Shit! Max threw the empty juice carton into the sink. Now *what am I supposed to do?* He fumed in silence while pacing the floor. His life sucked. He'd lost his appetite. Slowly mounting the stairs, he returned to his room. He stared for a full minute at the mess that littered the floor, his bed, his desk, and every other surface. *I could clean my room,* he supposed. *At least some of it. No, later.*

He slumped onto his chair and rebooted his computer.

What the hell! He sat up straighter. His PC clock was out of sync. The time zone had changed. He clicked on a map and discovered his clock was set for Beijing, Chongqing, Hong

Kong, and Urumqi, which was thirteen hours later than his time should be. *This is weird*, he deliberated. *Wait a second. Could this be a hack job? Has someone hacked into my computer?*

Max suspiciously looked around and stared at the closed drapes as if expecting to find the answer behind them. If his PC had been relayed to another network—supposedly somewhere in Asia—then someone had somehow gained control over it. Everything he did could and would be monitored. That would be a disaster. He logged into his wireless router but didn't find anything suspect. His PC firewall was operating and didn't show anything out of the ordinary either. *What the hell is going on here?*

The game.

Max quickly launched *Call of Duty* again. It needed a full five minutes for all the components to load. With his eyes glued to the screen, he watched as the series of install windows flashed by; none appeared to be anything other than the normal setup. *Wait! What's this? I've never seen that progress bar before.*

Two seconds later, it was gone, and he was left wondering if he'd seen it at all.

Shrugging, Max started the game. There was only one other player on the server—the new lieutenant, who was promoted to first lieutenant, which meant he'd killed a lot of Germans. As soon as Max pointed the cursor at him, a short horizontal blue line lit up above his head, indicating he was on his team. Max clicked on him to send a message. "Hi."

The other player just stood there looking at him. He said something, but there was no sound.

That's weird, Max thought. He peered more closely at the soldier. *He's not wearing my fatigues. That's not my design! Who is this guy?* Max hurriedly launched another program, which allowed him to download the uniform and open the source code.

Who's screwing with my system?

Max clutched his head with both hands. His eyes grew wider, and he stared with gaping mouth at the screen, holding his breath. The graphic code was written in Chinese or something! He had never seen anything like it. The only thing he understood was the number 2315. This was definitely an attack—his computer was seriously infected. “Fuck” he swore aloud as he quickly launched his virus scanner. The process would take at least half an hour. There was nothing more he could do but wait for the results.

Leaning back in his chair, he counted the minutes. He fought a yawn. His eyes blinked several times, and his head nodded. *I might as well get some sleep*, he decided. He pushed himself to his feet and flopped facedown onto his rumpled bed.

The last thing he thought of before falling asleep was what his father would say if he found out his online gaming had infected his PC . . . or even worse. He’d be in deep shit. Hopefully, the virus scanner would automatically delete the malware.