

O.D.I.N.

Occult Dynamics Intelligence Network



SCIENTIST

CLASS BOOK

by David Ger

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PROLOGUE
SAMPLE SEVEN

Prologue: Sample Seven

"In science, the most important thing is not the answer. It is to realise in time that the question is dangerous."

Dr. Hans Wendland, 1951

The samples arrived on a Thursday, in a cool box that a courier had brought from Bucharest. Twelve vials of blood and tissue from a village in the Romanian Carpathians, where nineteen people had died within two weeks of a fever no one knew. The infectious diseases laboratory in Vienna was the nearest one with the necessary safety level. Dr. Viola Brenner had been running it for six years.

She was forty-one, had two assistants, one technician, a fridge full of samples from outbreaks that no one except her remembered, and a reputation for being thorough. Colleagues called her slow. She herself called it thorough. In her professional life she had accompanied three epidemics on paper and one of them up close, in a tent in Guinea, and she had learned there that most mistakes happen in the first two days, when everyone believes they already know what they are dealing with.

She began the analysis on Friday. On Saturday she still had no explanation. On Sunday she had one, and she did not like it.

The tissue in Sample Seven was dead. The cells had died, the metabolism had stopped, every measurement said the same. And yet it changed. Not quickly, not visible to the naked eye, but under the microscope: the cells rearranged themselves. They formed patterns, circles within circles, which became a little clearer every hour.

Viola wrote everything down. That was how she had learned it. If you do not understand something, you document it until you understand it, and if you never understand it, at least the next person has the data.

On Monday evening she was alone at the microscope. Her two assistants, Jakob and Selin, sat in the next room evaluating the blood samples; the technician was on holiday. Viola watched as the circles in Sample Seven closed, one after another, seven of them, and then she heard a noise from the fridge where the other eleven samples lay.

It was a soft knocking. Like fingernails on glass.

She looked at the clock, because that is what you do when you are a scientist and do not know what else to do. The knocking stopped. Four minutes later it started again. Then once more, after exactly four minutes. It did

not sound like something that wanted to get out. It sounded like something that was knocking.

She did not open the fridge. That was, as she later said, the only sensible decision she made that evening. She pressed the emergency button that sealed the laboratory, and then she did something that was in no protocol: she set the fridge temperature to the lowest value it could manage, minus eighty degrees, and hoped that cold would do something.

Then she sat down on the floor, with her back against the airlock, and counted. Four minutes between the knocking signals. Then four and a half. Then five. Then seven. Each time quieter.

The knocking became slower. Then it stopped.

No sound came from the next room. She called her assistants' names over the intercom, twice, three times. No one answered. Through the airlock window she saw only the light that burned there and an overturned chair. She knew that she should go over, and she knew that the seal would then be broken. She remained seated. She later said that this was the second decision of the evening and that she still does not know whether it was wise.

The laboratory door opened four hours later. It was not the fire brigade, not the police, not the hospital management. Three people came in grey protective suits without any markings, and one of them, an older woman with glasses from the seventies, took off her hood and looked at the records Viola had made over four days.

"You've set the fridge to minus eighty," said the woman.

"Yes."

"Why?"

Viola thought. She wanted to give a scientific answer, and she had none. "Because I thought that everything that lives becomes slower when it's cold," she said. "Even when it's dead."

The woman smiled. It was not a friendly smile, rather one that recognises someone. "That's not science," she said. "That's instinct. You can't teach that." She put the records back on the table. "Your two assistants were in the next room," she said then. "We've found them. I'm sorry."

Viola Brenner left the laboratory that night as the only one alive, and she never returned. The newspapers mentioned a fire in the laboratory wing of the clinic. She went to Jakob's funeral wearing a headscarf and sunglasses, and his mother shook her hand without

knowing who she was. She did not go to Selin's funeral. By then she already carried a different name in a different passport.

In the weeks in between, the woman with the glasses visited her twice, in a flat that was not Viola's, and brought a folder each time. In the first were the measurements of sample seven, neatly typed up, with questions in the margin that Viola herself had not asked. In the second were photos of other laboratories, other refrigerators, other samples. The woman offered her no money and no safety. She offered to let her continue measuring. Viola said yes on the second visit before the woman had finished asking her question.

Three months later she stood in another laboratory, under a mountain in Switzerland, and opened a refrigerator in which lay eleven tubes that no longer moved. She wore a grey protective suit without markings. On the label of each tube, in her own handwriting, was a number from one to twelve. The seven was missing. Sample seven, she was told, was now

with the Collegium, because its circles had reminded someone there of something.

Since then, Viola looks at the eleven tubes once a month, through the glass, without opening the door. They do not move. But she has begun to schedule her visits so that they last exactly four minutes.

O.D.I.N. / SCIENCE BRANCH / SAMPLE REGISTER

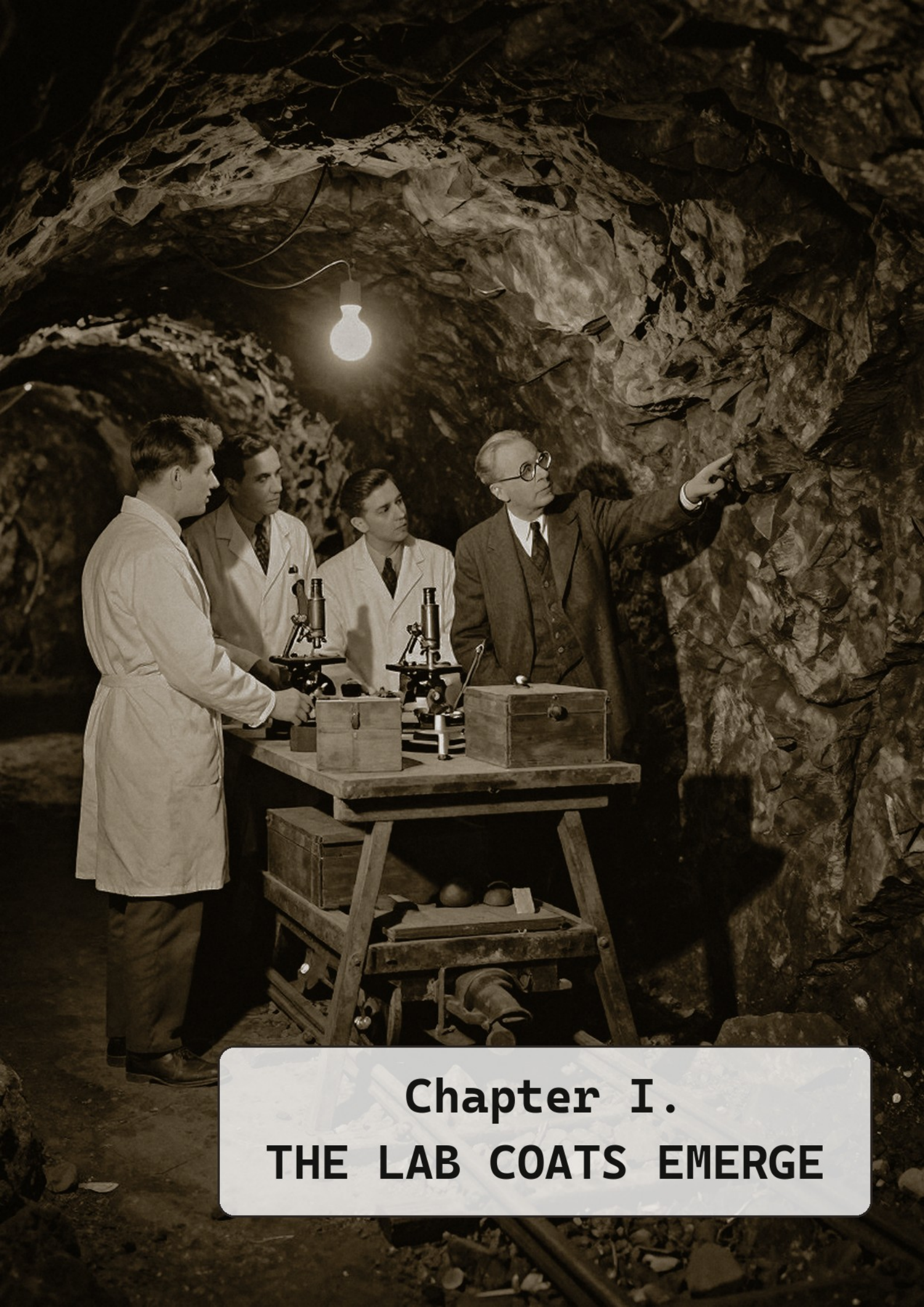
Received: 12 samples, Carpathians, village
[REDACTED]

Sample 7: tissue, dead, self-organisation in
seven circles.

Samples 1 to 6, 8 to 12: knocking at intervals
of 240 s at temperatures above -40 °C. Storage
at -80 °C. Since then without findings.

Taken over by: BRENNER, V. / Codename VIOLA

Note from Research Directorate: The circle
patterns correspond to MS Arcana 114, page 7.
Forwarding to the Collegium.



Chapter I.
THE LAB COATS EMERGE

The Institute

“The Thaumaturges ask what the stones say. I ask what they weigh. Both are good questions. Only one of them can be measured.”

Dr. Hans Wendland, 1948

When O.D.I.N. first appeared in the files in 1947, there were people who could fight, people who could lie, and people who heard voices in stones. There was no one who understood what was actually happening. That changed in the spring of 1948, when a physicist from Göttingen named **Dr. Hans Wendland** asked for permission to weigh a crystal belonging to the Collegium.

Wendland was forty at the time. He had worked on measuring instruments for aircraft during the war and afterwards on nothing at all, because no one in Göttingen had money for physics. A letter from a colleague in Oxford, who spoke of “strange stones in Welsh possession”, brought him to England. He travelled with a suitcase full of self-built instruments and an X-ray tube, which he had wrapped in blankets so that it survived the crossing.

The Collegium refused. Wendland asked again, and again, and the fourth time he was given a shard for an hour, under the supervision of a magister, in a laboratory in Oxford. He weighed it, measured its temperature, held it in a magnetic field and X-rayed it. Then he gave it back and said a sentence that is still quoted in the Science Branch to this day: “It is lighter than it ought to be, and warmer than it should be. It consumes energy, and I do not know where it gets it from.”



The magister is said to have replied that the Collegium had known that for twenty years. Wendland is said to have said that then the Collegium had forgotten to write it down for twenty years. The two nevertheless became friends.

Wendland founded **the Institute** that same year, in an abandoned mine tunnel near Bern, because Switzerland was neutral and mines were quiet. He began with four employees: a chemist from Lyon, a metallurgist from Falun, an electrical engineer from Zurich and a doctor from Vienna, who had seen things during the war that she did not speak about. In addition, there were two microscopes, a precision balance and a question that no one has answered to this day.

The First Four

The first employees of Wendland still have names in the Institute to this day, although all four bore codenames. **Odile Marchand**, the chemist from Lyon, built the first laboratory and wrote the rule that no one may be alone with a sample, long before there was a reason for it. **Nils Ekberg**, the metallurgist from Falun, spoke little and never switched on a radio. **Walter Gysin**, the electrical engineer, built every measuring instrument of the first ten years and laid the power lines through the mountain, some of which still lie there today. **Dr. Lotte Hainz**, the doctor from Vienna, set up the infirmary and treated everyone who came back from an operation, including those who were not Lab Coats.

Marchand died in 1990 in Lyon, Gysin in 1994 in his workshop, with a soldering iron in his hand, as he had wished. Hainz lived until 2003 in a flat above the Institute and came down to the canteen for breakfast every morning. Ekberg left the Institute in 1961 without saying goodbye. His laboratory notebooks are the only ones from the first years that are not in the archive.

The First Successes

The first years of the Institute were a time of great discoveries, and great mistakes.

- **1948** a crate of ore came from Kiruna, from a cavity in which it had been silent. Nils Ekberg smelted an alloy from it that swallowed the whisper of the crystals and the thoughts of the Psions alike. He named it after his laboratory book **Alloy S**, S for special experiment. No one ever quite believed him that that was all.
- **1949** the Institute, together with the physician Dr. Ilse Marek, built the **Cap**, a leather hood with sewn-

in plates of Alloy S that dampened a Psion's hearing. The Lab Coats supplied the metal. Marek supplied the knowledge of how tightly the Cap could sit before it hurt.

- **1953** after Kiruna, the Institute helped the Tactical Branch with the incendiary ammunition. Ashgrove and the alchemist Evan Pryce had the crystal dust, the Lab Coats calculated the ballistics and found out how to keep the dust in the projectile. It was the first time that alchemy and chemistry sat at the same table, and the two sides have never stopped arguing about who had the decisive idea.
- **1957** the Institute succeeded in the first complete measurement at an open rift, on the coast of Cornwall. The rift of 1953 had been fired upon by the Soldiers before anyone could set up a measuring device. This time Wendland was there first. The measurement yielded four things: a pressure drop, a temperature plunge, a deflection of the magnetic field, and a smell of ozone.
- **1962** the Institute developed the **beryllium insulation** for crystal transports, lighter than lead, and for the soldiers who had to carry the crates, a real relief.
- **1963** the workshop under the mountain with the Psionic Core built the first **Neuro-Helm**, which replaced the Cap, and shortly afterwards the first neural amplifiers.



The first three values from 1957 could be explained. Wendland explained the ozone smell that same night, and the explanation pleased no one: ozone is created when oxygen is struck by energy. Something struck the air over Cornwall with energy, and it did not come from this side. Since then, every Lab Coat knows why a rift

smells of ozone. Where the energy comes from, no one knows to this day.

In O.D.I.N.'s office grapevine, the scientists were soon called only **the Lab Coats**. They took the name with humour. Most of them actually wore one every day.

From Wendland's Laboratory Book

"A lab notebook is a letter to someone you will never meet. Write so that they understand you."

Dr. Hans Wendland, 1949

Wendland's laboratory books lie in his office at the Institute, forty-four volumes from 1948 to 1979. Every new Lab Coat gets the following entries to read in the first week, and most of them then continue reading voluntarily.

12 April 1948, OXFORD

Crystal shard, 11 g. Mass slightly lower with each measurement. Temperature 1.2 degrees above room temperature, constant. Magnetic field: no reaction. X-ray: clear, no inclusions. The Magister next to me says the stone whispers. I hear nothing. I write it down anyway.

3 September 1957, CORNWALL

First measurement at an open rift. Pressure drop, temperature plunge, magnetic field spikes. Ozone. Why ozone? Ozone is created when oxygen is struck by energy. Something strikes our air with energy. From the other side.

20 February 1977, NORDLICHT

412 pages. I have rewritten the last page three times. The honest version reads: We measured something that cannot exist, and it measured us. The Research Directorate has asked me not to submit the honest version.

LAST ENTRY, 1979

It is not in the stones. It comes through them. I am going to check where from.

The Dark Years

In the seventies, the Institute became larger, richer, and less cautious. After the Cascade of 1971, the Council demanded answers: What had happened in the hall in Wales? What had Kantor heard? How could one prevent it from happening again? The Lab Coats examined the seven Psions who had lost their gift. For months. One of them later wrote in a letter to the Institute that he had been treated like a measuring device that one wanted to calibrate. The letter hangs today in the entrance hall of the Institute. Wendland hung it there shortly before he retired in 1979.

In 1977, after Nordlicht, the Institute was the first branch to examine the empty base, after the search party of the Tactical Branch. The Lab Coats found the stopped clocks, the grey crystals, the half-full cups. They measured everything. Their report comprises 412 pages. The last page contains only one sentence: *The measured values are consistent with an event for which there is no measurement.*

Two years later, Wendland was gone. Officially he retired, at seventy-one, and no one found that strange, except those who knew him. He left behind a tidy office, a note on the desk and a gap that no one has filled to this day. In 1981 the physicist Martin Hofer, Wendland's most gifted student, died alone in his laboratory, over a device he had built himself. That same night, deep inside the mountain, a rift opened that has not closed since. The Lab Coats call it the **small rift**, and they still learn from it today.

The Institute survived the betrayal of 1989 better than the other branches, because hardly any Lab Coat was listed under their real name in the files that were sold. Nevertheless, two laboratories in the Holds were abandoned, and a Physicist who knew too much disappeared on the way from Bern to Zurich. Since then, the Lab Coats also work in cells, and most of them only see the Institute from the inside for special projects.

Asklepios

The darkest chapter of the Institute is the most recent. In 2004, the branch began the **Asklepios** programme on behalf of the Council: nanites that were supposed to heal, strengthen and keep soldiers alive. Forty volunteers from the Tactical Branch came forward. Twelve survived.

The doctor who still leads the programme, **Dr. Ines Albrecht**, has never spoken publicly about the twenty-

eight others. In the Institute, people only speak of it in hushed tones. A year later, the branch founded an ethics committee, and every new Lab Coat gets to read the letter from the entrance hall in their first week, and afterwards a copy of the list of the twenty-eight. Not as a reproach, say the instructors. As a reminder of what one measures for.

CHRONICLE OF THE SCIENCE BRANCH, CLEARANCE AGENT

1948: Wendland weighs a crystal. Founding of the Institute near Bern. Alloy S.

1949: The Cap, with Dr. Ilse Marek.

1953: Incendiary ammunition, with the Tactical Branch.

1957: First measurement at an open rift.

1962: Beryllium insulation.

1963: First Neuro-Helm.

1971: Investigation after the Cascade.

1977: Nordlicht. 412 pages.

1979: Wendland retires.

1981: Death of Dr. Martin Hofer. The small rift.

1987: Kinetic energy shields.

2004: Programme Asklepios.

2005: Founding of the ethics committee.

2011: The Accumulation. Project Map begins.

The Accumulation

Since 2011, rifts have been opening more frequently, crystals appear in aquariums and house walls, children sing in their sleep. For the Science Branch, this is the greatest challenge in its history and the greatest opportunity. For the first time, there is enough data.

The Accumulation has also changed the branch itself. Since 2011, the Institute has hired more people than in the thirty years before, and it takes people it would not have taken before: a mechanic without a degree, a polar researcher who brought back a sample, a surgeon who was involved in Asklepios. The laboratories in the Holds have been enlarged, and Lab Coats go on operations more often today than ever before. The old Lab Coats say the Institute has become a fire brigade. The young ones say, well, it is burning.

In 2011, the Institute began **Project Map**: a database of all known rifts, manifestations and crystal finds since 1938, with location, time, duration and measured values. The map grows larger every day. On a wall in the Institute hangs a map of Europe, on which every find

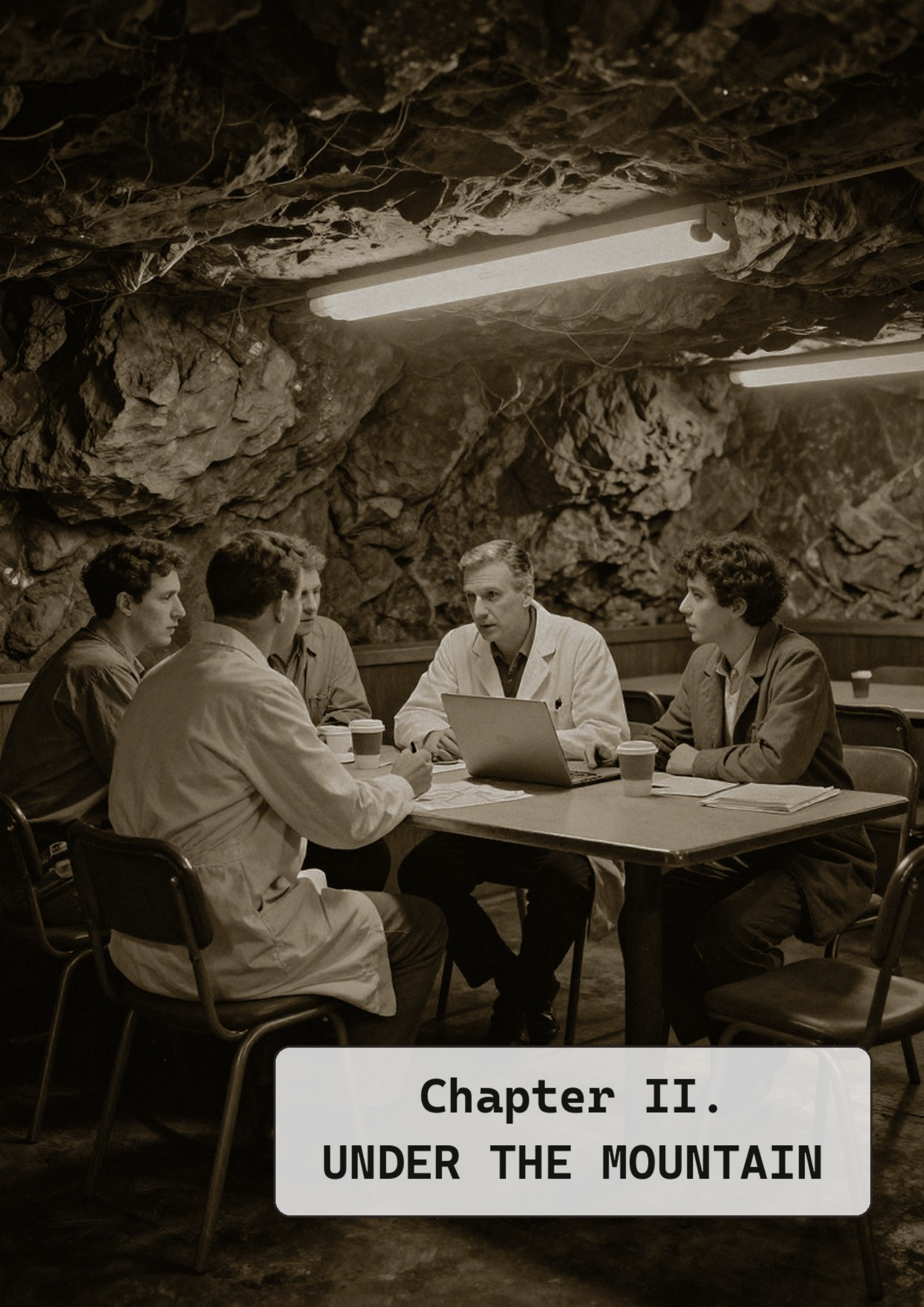
gets a pin, because the Physicists say that you see patterns with your eyes faster than with the computer.



Since about 2019, the map shows a pattern that no one in the Institute says out loud. The points on the map are not random. They form circles.

Last spring, the Research Directorate moved the map from the corridor into a room that can only be entered with a key. Since then, the Lab Coats stick their pins into a copy, and in the canteen bets are placed on what is on the original that is missing from the copy.

Officially, the circles are an artefact of the method: you find more where you have already searched. The Bulletin has printed this explanation twice, and the astrobiologists have contradicted it twice. Dr. Julian Reyes, who leads the map, has written nothing at all. He is calculating.



Chapter II.

UNDER THE MOUNTAIN

O.D.I.N. from the Lab Coats' Perspective

"The other branches fight against the inexplicable. We are the ones who will eventually explain it. Or the ones who accidentally make it possible in the first place."

Research Director, Institute

For the Science Branch, O.D.I.N. is above all one thing: a research facility with an armed field office. The Lab Coats do not see themselves as soldiers or agents, but as researchers who happen to work on the most dangerous question of humanity. They go on missions because data cannot be collected from a distance. But their heart is attached to the laboratory.

This makes them difficult colleagues for the other branches. A Scientist stops at the wrong moment to measure something. They take samples where others would flee. And they ask questions that nobody wants to hear: Where does the energy come from that makes every rift smell of ozone? Why do crystals weigh less than they should? And why have the Council's answers to these questions been getting shorter for years?

The Lab Coats are also the only branch that regularly asks the Council for something instead of receiving orders: for money, for samples, for access to crystals and archives. They almost always get what they want, as long as they deliver results. The Lab Coats know this, and they also know that it is a way of being kept on a leash.

The Institute

The Institute is still located under a mountain near Bern, in a tunnel system that was driven ever deeper into the rock in the fifties and sixties. It has its own laboratories, its own workshops, its own hospital, a computer centre and the **Cold House**, the largest sample storage facility of O.D.I.N., where at -80°C things lie of which nobody knows whether they are dead.

One enters the Institute through a delivery entrance belonging to a measurement technology company, and takes a lift with only two buttons four hundred metres down. Below lies the **Entrance Hall**, the only room under the mountain into which daylight falls, through a long shaft up to the surface. In the hall hangs the letter from the Psion from 1972, and there stand the two display cases with the prototypes that Chapter V tells about.

THE LETTER IN THE ENTRANCE HALL, 1972, EXCERPT

They measured me, weighed me, X-rayed me and questioned me. They wrote down how long I sleep and what I dream.

Nobody asked what it is like to hear nothing anymore, after having heard everyone for thirty years.

I wish you that one day you find something that you cannot measure. And that then someone asks you how you are.

In addition, the branch maintains smaller laboratories in almost every Hold. Most Scientists work there and only travel to Bern for special projects. Anyone who has been to the Cold House once is reluctant to go back.



The Research Directorate

The Science Branch is led by a **Research Directorate**, a body of five scientists, one for each discipline. The Research Directorate decides what is researched, who works on which project and which results go to the Council. Most results go to the Council. Not all come back.

In addition to the Research Directorate, there has been an **Ethics Commission** since 2005, after Asklepios. It has three members, one of whom is not a Lab Coat, but a Psion. The Commission can stop projects. It has done so twice since its founding. Both projects were continued by the Council, at another location.

The Laboratories in the Holds

Every larger Hold has a laboratory of the branch, led by a **Laboratory Director**, who is usually called Research

Director in the Holds, who supports the handlers of the cells and reports to the Research Directorate. The laboratory analyses what the cells bring in, cares for the injured, repairs equipment and sends everything it does not understand to Bern. A Scientist in a cell thus has two superiors: their handler, who wants results, and their Laboratory Director, who wants data. Usually both want the same thing. If not, the handler wins during the mission and the Laboratory Director afterwards.

Publication Ban

No Scientist may publish what they find out at O.D.I.N. This is the hardest rule of the branch, and for many the most painful. Whoever solves a century-old puzzle gets no Nobel Prize for it, but an entry in a database that fifty people are allowed to read.

The Institute therefore has its own journal, the **Bulletin**, which appears four times a year in a print run of two hundred copies. Each copy is numbered and must be returned after reading. Whoever publishes in the Bulletin is considered someone in the branch. Outside, nobody knows that they exist.

Some Lab Coats nevertheless publish, outside, under their old names, papers on harmless by-products of their research: a new refrigerator, a better microscope, a formula for concrete. The Research Directorate lets them do so, as long as nobody asks where the idea came from. Two patents of the Institute keep entire bases running.

The Unwritten Rules

- **Everything is documented.** Those who do not write down what they have done have not done it.
- **Never alone with a sample.** Marchand wrote the rule down in 1948. Since Sample Seven, everyone has kept to it.
- **The cold store stays cold.** No matter what happens. If the power fails, you do not go inside. You wait for the emergency generator.
- **Ask before you open.** A container, a door, a crystal. Ask someone who has done it before.
- **Read the letter in the entrance hall.** Once a year. Even if you know it by heart.
- **Do not ask what happens to the data that goes to the Council.**

RUMOURS FROM THE INSTITUTE CANTEEN (D6)

1: Alloy S is not named after a special experiment. S stands for silence. Ekberg was in the cavity near Kiruna in 1947, and after that he never switched on a radio again.

2: In the deepest tunnel of the cold store lies a sample that has been growing since 1957. It is now as large as a human being.

3: The map shows circles because someone is opening the rifts. And the Council knows who.

4: Asklepios was not started because of the soldiers. The nanites were supposed to learn something else.

5: Wendland did not retire. He went into a rift, voluntarily, with a measuring device.

6: The ethics committee stopped a third project. It was called Opener. Nobody knows what it was.

Life Under the Mountain

"We don't understand everything we fight. But we're working on it, and that sets us apart from the others."

Research Director, Hold-1

Induction

Scientists are not trained, they are inducted. Most arrive with a completed degree, often a doctorate, and they already know how to conduct research. What they have to learn is how to conduct research when the research strikes back.

Induction takes four months. New Scientists learn to put on protective suits, secure samples, stay behind a Soldier during operations and still take measurements. They learn that a rift smells of ozone and that you then do not approach, but step back and push the measuring device forward. They learn to shoot, not well, but well enough not to hit a colleague by accident. And they learn the letter in the entrance hall.

Since 2011, induction has also been shortened, as everywhere at O.D.I.N. Many Lab Coats stand in a basement for the first time after two months, where something is waiting, and write their first report on their knees.

Between Operations

Most Scientists spend ninety per cent of their time in the laboratory. They analyse samples, build devices, write reports, argue with colleagues. Operations are field

research for them: rare, dangerous and incredibly productive. A single operation often provides data for a year.

Many Scientists have friendships at the Institute that last for decades, because only another Lab Coat understands what one is working on. The Institute canteen is notorious for its discussions, which often go on into the night and sometimes end with an experiment that the Research Directorate has not approved.

The Canteen

The canteen is next to the data centre because that is where the waste heat goes, and it has the only coffee machine under the mountain that nobody repairs because it never breaks down. Here the disciplines meet. Here the rumours, the bets, the nicknames of the prototypes and most of the ideas for which someone later writes a proposal are born. And here hangs the board on which every Lab Coat returning from an operation writes a line: place, date, what they brought back. Those who do not return get a line from someone else.

Codenames

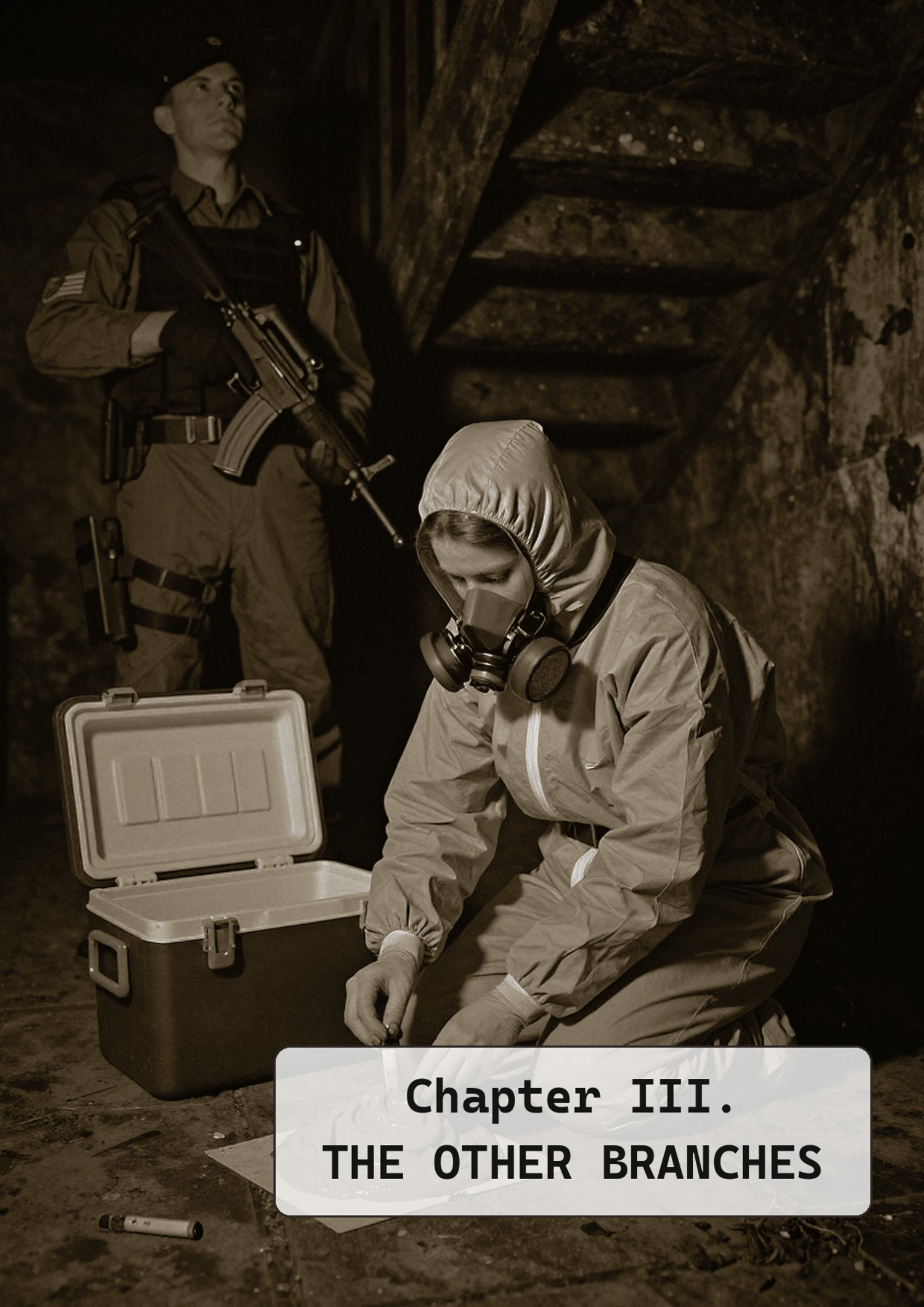
The Lab Coats choose their codenames themselves, and almost all choose a physicist, a tool or a joke. In the

branch there is a Planck, a Newton, a Pipette and a Schraube. No codename is assigned while its bearer is alive, and whether it becomes free afterwards is disputed among the bases. At the Institute it is inherited: the old Planck worked on the Choir's helmets for seventeen years, and when he died shortly before their arrival, his will stated who should receive the name. Viola kept her first name. She says she left everything else behind in Vienna and wants at least to recognise herself when she is called. The Research Directorate allowed it because no one in Vienna is looking for a Viola any more.

The Price

Scientists pay with their certainty. They set out to understand, and every day they understand a little more, and every day what they do not understand becomes a little larger. Some endure it. Some become obsessed. And some begin to measure things that should not be measured, because they want the answer more than their own safety.

The Institute's infirmary has its own psychologist for Lab Coats, who asks one question above all: What did you last not write down? Most Lab Coats do not answer. He then waits, and eventually they tell him.



Chapter III.

THE OTHER BRANCHES

The Lab Coats and the Others

"They collect the samples, we tell them what it is. That's called division of labour. The others call it: the Lab Coats stand at the back and measure."

Engineer, codename Schraube

The Science Branch is indispensable at O.D.I.N. and somewhat ridiculed. Every cell needs a Scientist who explains what you are dealing with, who tends wounds and repairs equipment. But Scientists stop at the wrong moment, ask questions when it's about survival, and lug cool boxes through cellar vaults. The other branches love them anyway. Mostly.

The Operations Branch: Agent

"She asked me if my device could also forge fingerprints. I said that was unethical. She said that wasn't an answer."

Cyberneticist, codename Relais

How Agents see the Lab Coats: as the most demanding suppliers. Agents want devices that are small, inconspicuous and impossible. The Lab Coats build them for them, and complain while doing so.

How the Lab Coats see the Agents: as skilled customers with questionable morals. Scientists believe in truth. Agents use it like a tool. Many Lab Coats secretly admire the Agents for that and would never admit it. And every Lab Coat who has once gone through a back entrance with an Agent knows how badly they themselves lie.

The Tactical Branch: Soldier

"They took my shield apart three times and put it back together four times. The fourth time it was better. Of course I don't tell them that."

Techno-Stormtrooper, codename Schildwall

How Soldiers see the Lab Coats: as the people without whom there would be no shields, nanites and resonance pistols. And as the ones who made Asklepios. The Soldiers forget neither.

How the Lab Coats see the Soldiers: as the most honest testers. A Soldier says whether a device works in the field, and they say it immediately. Engineers and Techno-Stormtroopers work so closely together that in some Holds they sleep in the same workshop. Between the Cyberneticists and the Nanotech Veterans, however, there is something that nobody talks about.

The Psionic Core: Psion

"They want to know how my head works. I want to know why it does. We never arrive at the same result."

Psion, codename Echo

How Psions see the Lab Coats: with distrust. The Lab Coats built the cap, the helmets, Alloy S. And after the Cascade they examined seven Psions for months. The letter in the entrance hall is from one of them.

How the Lab Coats see the Psions: as the greatest puzzle they are allowed to work on. Most Lab Coats know that they owe the Psions something. Some work with them as equals. Others still see them as measuring instruments that need to be calibrated.

The Arcane Branch: Thaumaturge

"I measured how much energy his crystal releases when he casts spells. It was more than can be in the stone. He says that is the voice. I say that is a measurement error. We both know it wasn't one."

Physicist, codename Planck

How Thaumaturges see the Lab Coats: as competitors for interpretive authority. The Collegium wants to understand what the crystals say. The Lab Coats want to understand how they work. Both consider the other's question to be the wrong one.

How the Lab Coats see the Collegium: as indispensable and frustrating partners. The Collegium owns the crystals and only gives them up reluctantly. Since Wendland had to ask four times in 1948, little has changed. Biochemists and Alchemists, however, often work so closely together that one no longer knows who belongs to which branch.

The Investigation Branch: Investigator

"The Scientist says the blood at the crime scene is three days old. I say the witness is lying. Together we know that it wasn't murder, but something worse."

Investigator, codename Raven

How Investigators see the Lab Coats: as the best partners at the crime scene. Forensics, laboratory analyses, traces that no human sees. Many Investigators have solved their best cases with a Lab Coat.

How the Lab Coats see the Investigators: as kindred spirits. Both branches search for truth, only with different tools. Astrobiologists and Paranormal

Detectives often meet in the same places, and sometimes at the same corpses.

The Disciplines Among Themselves

Discipline	Reputation in the Branch
Biochemist	The doctors. Everyone owes them something, everyone knows it.
Astrobiologist	The collectors. They bring things into the cold store that nobody wants to touch.
Physicist	The theoreticians. They explain everything, except what one needs to know right now.
Engineer	The doers. When something is broken, you fetch them. When it is intact, too.
Cyberneticist	The controversial ones. Since Asklepios, one no longer sits next to every one of them in the canteen.

One Cell, One Sample

This short excerpt shows how a Scientist works together with other classes. Viola, the biochemist, knelt with Brandt and Moth in a basement in Graz next to something that until ten minutes ago had been a being from a rift and now lay on the floor as a grey, viscous mass.

“We have to go,” said Moth. “The police will be here in five minutes.”

“Two minutes,” said Viola. She had opened the cool box and had a spatula in her hand. “I need a sample.”

“We don’t have two minutes.”

“Then one.” Viola scraped some of the mass into a vial, sealed it, labelled it with a waterproof pen. Place, time, temperature. Then she took a second vial.

Brandt stood at the stairs and looked up. “Viola.”

“I know.” She kept scraping. “This is the first sample from a being of this kind since 1974. If we don’t take it with us, we’ll know nothing again next time.”

Upstairs, a car door slammed. Moth disappeared silently towards the back door. Brandt stayed put.

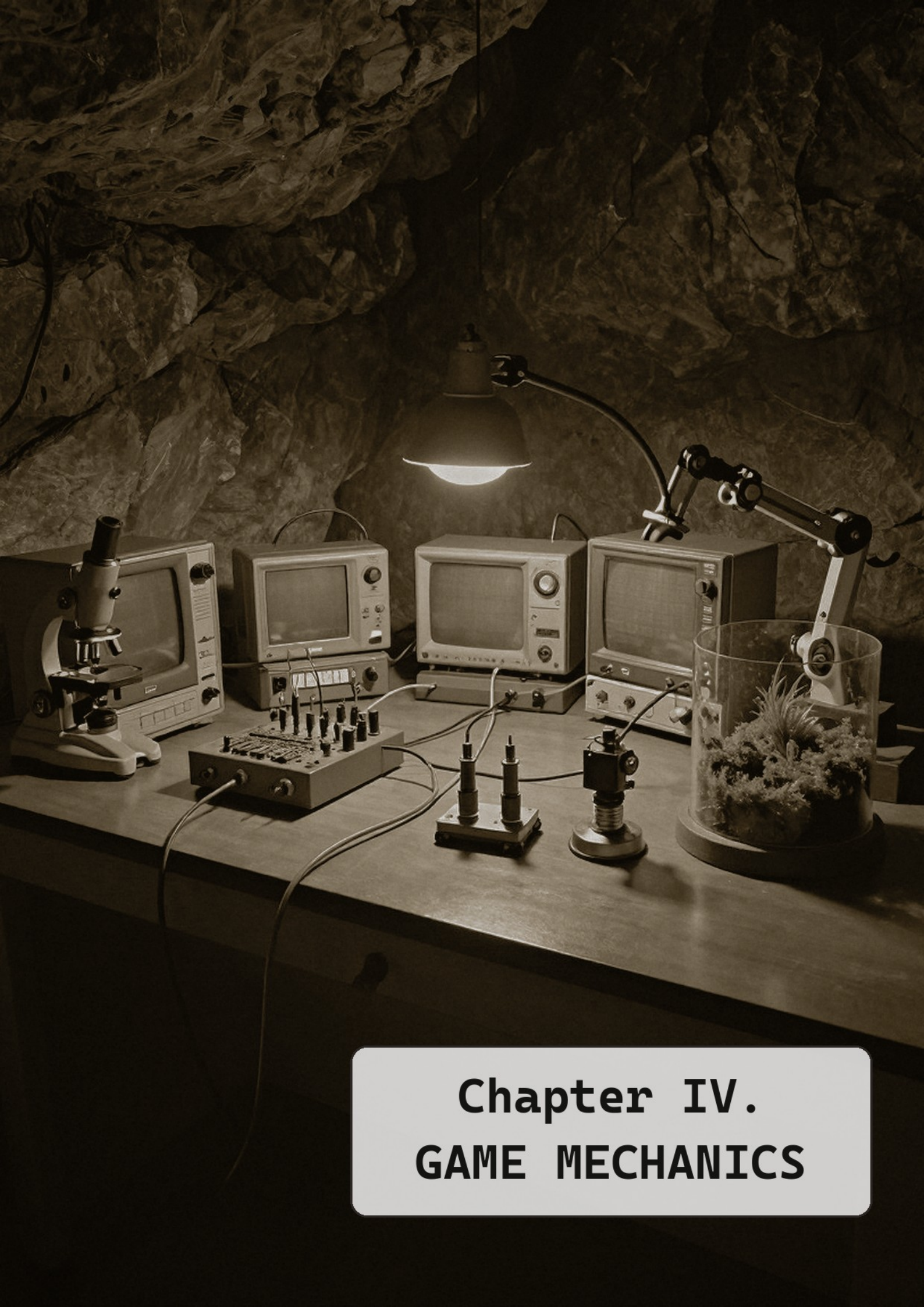
Viola sealed the second vial, placed both in the box, closed it and stood up. “Done.”

They were outside before the police reached the basement door. In the van, Viola sat with the cool box on her lap and wrote notes in her lab book in the flickering light.

“Was it worth it?” asked Brandt.

Viola didn’t look up. “Ask me in three weeks,” she said. “Then I’ll know whether the thing is dead.”

One of the two vials went to Bern to the cold store. The other Viola gave a week later to the Engineer of her Hold, who wanted it for her prototype. How it went on from there is told in Chapter V.



Chapter IV. GAME MECHANICS

The Five Disciplines

"The great questions belong to no discipline. He who knows only one subject understands only half of what he sees."

Dr. Hans Wendland, 1955

This chapter summarises everything you need to create and develop a Scientist. Each of the five disciplines has its own chapter in this book with its history, its playstyles, an example character, and its pillar in the Experimental Setup.

Discipline	Focus	Bonuses
Biochemist (VII)	Healing, Poisons, Analysis	+2 INT, +1 WIS
Astrobiologist (VIII)	Alien Life, Samples, Environment	+2 INT, +1 WIS
Physicist (IX)	Energy, Fields, Rifts	+2 INT, +1 DEX
Engineer (X)	Repair, Modification, Improvisation	+2 DEX, +1 INT
Cyberneticist (XI)	Implants, Machines, Networks	+2 INT, +1 DEX

Creating a Scientist

Scientists are created according to the rules in Chapter III of the core rulebook. Their core skills are Academic Knowledge, Technology, and Perception, each +1, and every Scientist begins with the branch's basic equipment: lab kit, analysis tablet, safety goggles, field scanner, and emergency medication set. Additionally, every Scientist begins with a **prototype** of maturity 1, described in Chapter V. Also consider how your character first measured something that should not exist. The character generator at odin-rpg.pages.dev/generator/en/ is quicker. It guides you through creation question by question, knows all five subclasses of this book with their backgrounds, and produces the character sheet as a PDF at the end.

A tip on attributes: Almost everything a Scientist does in the lab runs through Intelligence. But spotting traces and noticing anomalies runs through Wisdom, and Engineers work with their hands. Do not forget Composure. Scientists see more than others because they look more closely, and stress management runs through COM. And think about your Hit Points: A Scientist with CON 2 and Toughness 2 can take two good hits, not three.

The Impossible Measurement

D6	What brought you to O.D.I.N.
1	A sample that moved even though it was dead.
2	A reading that was in no textbook, at a place where people had disappeared shortly before.
3	A machine that kept running after you had cut the power.
4	A patient who spoke a language that does not exist, and whose brainwaves pulsed to the rhythm of a song.
5	An article you wanted to submit. The journal rejected it. The next day, a man in a grey coat stood in your laboratory.
6	A satellite image on which a point glowed where there was nothing. You checked.

Your Question

Every Scientist at O.D.I.N. has a question that drives them. Choose or roll.

D6	The question that will not let you go
1	Where does the energy come from that makes every rift smell of ozone?
2	Why do crystals become lighter the longer you weigh them?
3	What do the Psions hear, and can it be recorded?
4	Is what comes through the rifts alive?
5	Why are Asklepios' nanites restless near crystals?
6	What really happened in Solberg in 1938?

Why They Stay

Scientists stay at O.D.I.N. because here they are allowed to work on questions that no one else may ask. The following archetypes supplement the drives from the core rulebook.

RULE: ARCHETYPE AND DRIVE

A Scientist can use their archetype as a drive instead of a drive from the core rulebook. They reduce 1 strain once per mission when they make a difficult decision in accordance with their archetype.

The Curious One

He wants to know. Everything. He stops to measure when others flee, and he is happy doing so. The question for his play: What would he risk to get an answer?

The Healer

He is here to save people. Science is his tool, not his goal. The question for his play: How far may one go to save many?

The Inventor

He builds. He wants to create things that have never existed, and O.D.I.N. gives him material that others only dream of. The question for his play: What happens when his invention falls into the wrong hands?

The Sceptic

He believes in nothing he cannot measure. Not in magic, not in psionics, not even in what he has seen himself. The question for his play: What does he do when the measurement contradicts him?

The Guilty One

He has worked on something that harmed people. Asklepios, the investigations after the Cascade, a project that the ethics committee stopped. He is here to make amends. The question for his play: Can one even do that?

The Obsessed One

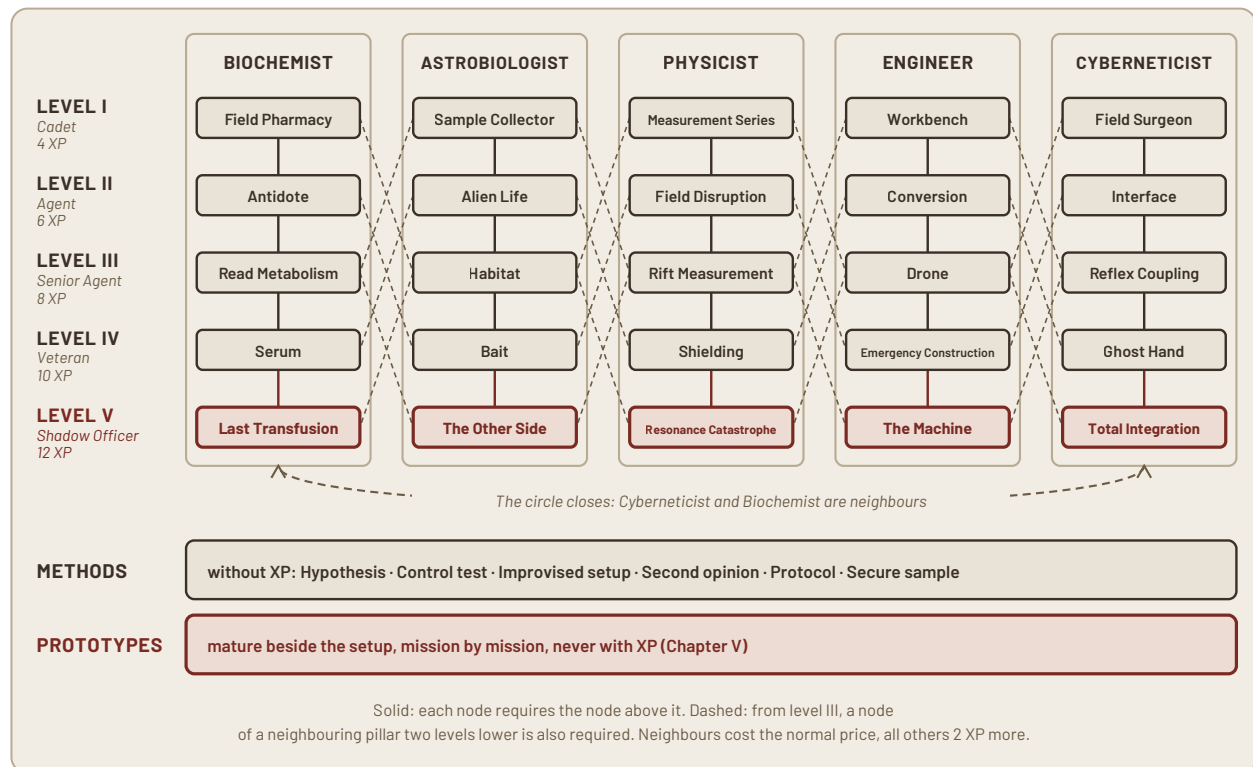
He has fallen prey to a question, and it will not let him go. He sleeps in the laboratory, he forgets to eat, he measures at night. The question for his play: Who brings him back before the question devours him?

The Experimental Setup

"A biochemist who knows no physics is a cook. A physicist who knows no biology is a slide rule."

Research Director, Institute

Psions grow like a tree, Thaumaturges penetrate a Seal, Soldiers build an arsenal, Agents lead a double life. Scientists work in an **Experimental Setup**: each discipline stands alone, but none gets far without the others. Whoever wants to go deeper into their field must look beyond its edge.



Structure

- **Five pillars.** Each discipline has its own pillar with five nodes, one per level. Each node requires the node of the previous level in the same pillar.
- **Neighbours.** The disciplines are arranged in a fixed order that closes into a circle: Biochemist, Astrobiologist, Physicist, Engineer, Cyberneticist and back to Biochemist. Each discipline has exactly two neighbours.
- **Interdisciplinary.** From level III, each node in your own pillar also requires a node from a neighbouring discipline that is two levels lower. For level III, a level I node; for level IV, a level II node; for level V, a level III node.
- **Foreign pillars.** Nodes from the two neighbouring disciplines cost the normal price, all others cost 2 XP more. Foreign nodes must be at least one level below your own highest level and follow the same requirements as in their own pillar.
- **Masteries** at level V cost 1 strain after use.

Level	From Rank	Cost
I	Cadet	4 XP
II	Agent	6 XP
III	Senior Agent	8 XP
IV	Veteran	10 XP
V (Mastery)	Shadow Officer	12 XP

Active nodes use the attribute and skill that fit the action, and have difficulty Doable (2) unless otherwise stated. The pillars of the five disciplines are at the end of their chapters from Chapter VII.

The Experimental Setup rewards cells with more than one Scientist, but it does not require it. A single Biochemist who has learned Sample Collector from the Astrobiologist is more valuable to a cell than one who knows only their own field. That is exactly what Wendland wanted: people who look beyond the edge of their laboratory.

Contamination

Whoever works long enough with samples from rifts takes something away with them. This is the counterpart to Resonance, Whisper, Echo and Fade of the other classes.

RULE: CONTAMINATION

A Scientist's Contamination is the number of supernatural samples in their prototypes, plus 1 for each level V node. Some rules increase it temporarily. That is stated there.

Whenever the Scientist botches an analysis of supernatural material or a prototype with a sample malfunctions, the game master secretly rolls a D6. If the result is equal to or less than the Contamination, the sample has left something behind. What that means is decided by the game master. The Game Master's Guide gives them suggestions.

The player knows their Contamination, but not the roll. They only notice what happens, and sometimes they notice it only later. Scientists who have taken something away tell of small things: one found frost on her pillow in August. One sometimes hears a knocking, every four minutes, that no one else hears. One drew circles in his lab book in his sleep, seven of them, and in the morning did not know why.

Contamination can only be reduced in one way: with fewer samples. Whoever removes a sample from their prototype and hands it in at the cold store reduces their Contamination by 1, but the prototype loses the maturity it gained through the sample (Chapter V). That is why experienced Scientists rarely install more samples than they need. They know what each one costs.

Methods

All Scientists master the following methods. They cost no XP and are available from the rank of Cadet. They are the counterpart to the manoeuvres of the Soldiers and the tricks of the Agents: procedures learned in the laboratory and applied in the basement.

Hypothesis. Once per scene, after one minute of observation: the Scientist asks the game master a question about a phenomenon that can be answered with yes or no. The answer is honest, but perhaps not complete.

Control test. Once per scene, the Scientist may repeat a failed analysis that was not a botch, with -1 die.

Improvised setup. If they lack a measuring device, they build one in ten minutes from what is there. It works once, with -1 die.

Second opinion. Two Scientists working together on an analysis do not roll according to the normal rules for

cooperation. Instead, one of them rolls with +2 dice, without the other having to roll first.

Protocol. As long as the Scientist follows a prepared protocol, a checklist for exactly this situation, they receive +1 die on horror tests. They write the protocol before the mission, and the game master decides whether the situation fits it.

Secure sample. One action. The Scientist secures a sample of supernatural material in a container, without a roll, if they have a suitable container with them.

Example of Use: Methods in the Basement

Planck, the physicist, and Viola, the biochemist, are standing with Brandt in the basement of a tenement building in Linz. The residents have been complaining for a week about headaches and about noises from the wall.

Protocol. Viola wrote a protocol before the mission for unknown samples in residential buildings, half a page, six steps. When a knocking comes from the wall, she follows step one: gloves, mask, distance. She receives +1 die on the horror test and passes.



Hypothesis. Planck observes the measuring device for a minute and asks the game master: “Is the source of the headaches the same as that of the noises?” The answer is yes. With that, the cell knows that it has only one problem.

Improvised Setup. Planck has no stethoscope for walls. She builds one in ten minutes from a drinking glass, a microphone, and her laptop. It works once, with –1 die. She hears behind it a humming in a four-minute rhythm.

Second Opinion. Viola and Planck analyse together the dust that trickles from a crack in the wall. Instead of normal cooperation, Viola rolls with +2 dice. The result: crystal dust, fine as flour.

Secure Sample. When Brandt opens the wall and something moves behind it, Viola uses an action to secure a sample of the dust in a beryllium container before she steps back.

None of these methods costs XP. But the humming in a four-minute rhythm is now in two lab books.

Analysis and Research

No activity takes up more time in the life of a Scientist than analysis. The following rules make it more than a single roll.

RULE: ANALYSIS

An analysis is a test on INT and the appropriate skill: Chemistry for substances, Biology for living things, Xenobiology for alien things, Physics for energy and radiation, Medicine for people. The difficulty is Doable (2) for known things, Hard (3) for supernatural things, and Very Hard (4) for something no one has ever seen.

In the field, an analysis takes ten minutes and costs –1 die, unless the Scientist has a lab kit or a field lab with them. In a Hold’s laboratory, it takes one hour and receives +1 die; at the Institute, one day and +2 dice.

If it succeeds, the Scientist knows what it is. Each margin answers another question: where it comes from, what it does, how to stop it. A critical success also reveals something no one asked about.

RULE: RESEARCH PROJECT

Between missions, a Scientist can research a question that goes beyond an analysis: where a being comes from, how to predict a rift, what an artefact does. This is an extended test (core rulebook, Chapter II). The game master sets the required successes, usually 8 to 15, and the Scientist rolls once between two missions.

Whoever researches at the Institute receives +1 die. Whoever requests a suitable sample from cold storage for this receives +1 more die. A botch resets the project to zero, or the sample does something that was not in the request.

A Scientist always runs only one research project at a time. At the end there is an answer, and the game master should give it honestly, even if it is uncomfortable: a weakness, an origin, a pattern, a new question. A successful project is also a good reason to give a prototype a new name or a sample a new place in cold storage. And it is almost always a reason for a new mission, because the Research Directorate reads the answer and wants to know if it is correct.

Scientists in Combat

Scientists are vulnerable in open combat, and the core rulebook says this clearly: they need cover. That does not mean they are useless. They fight before it starts, with prepared ammunition, modified weapons, and a field generator at the door. And they fight afterwards, with stabilising, first aid, and an antidote. In between, their place is behind the wall corner, with full defence if there is nothing better to do, and with an eye on everything that can be changed without shooting: the light, the power, the doors.

Combat Example: The Underground Car Park

Viola, Schraube, and Brandt want to fetch a cool box from a collector's car in an underground car park in Basel. Two mercenaries come down the ramp (Professionals: Initiative 3, Assault Rifle 3 + 3, Damage 4, Defence 2, Armour 2, 9 HP). One leads, and the other retreats if the leader falls.

Before the Combat. Schraube hears the footsteps on the ramp. Before the first round begins, she uses System Adaptation on Brandt's assault rifle, which gives him +1 die for the scene, and Viola prepares his magazine with Toxin Mixer. Both abilities are thus expended for this scene.

Round 1. Schraube (Initiative 5) forgoes her action and sprints 20 m to the fuse box behind a pillar. Brandt (4) shoots at the leader, with DEX 4, Firearms 4 and 1 bonus die. White: 6, 5, 2, 5, 1 gives 3 successes, coloured: 4, 2, 6, 3 gives 2. Five successes against defence 2 are 3 margin, a critical success, and Brandt chooses that armour does not count: $4 + 3 + 1$ for the poison gives 8 damage. The leader has 1 HP left, and he fails the test against the poison: he loses his action. The second mercenary (3) shoots at Viola, who is standing next to the car, partial cover, defence 3. Three successes, no margin: 4 damage, Viola has 6 HP left. Viola (2) ducks behind the car and takes Full Defence, defence 5 until her next action.

Round 2. Schraube short-circuits the fuse box, with INT 4, Technology 4 and +2 for improvisation against Doable (2). The garage goes dark, and anyone without night-vision goggles now rolls with -2. Brandt has one. He shoots at the leader again, 3 successes against defence 2, 1 margin: $4 + 1 - 2 = 3$ damage, and the man collapses. The second mercenary sees him fall and retreats up the ramp, into the dark.

After the Fight. Viola stabilises the leader, INT 5 and Medicine 4 against Doable (2), because a living mercenary tells more than a dead one. Afterwards she treats herself: First Aid against Easy (1), 3 successes heal 3 HP and Emergency Medical Care 2 more. She is back at 10.

What This Shows. Neither Viola nor Schraube fired a shot. But without the poison and system adaptation, Brandt would have needed three rounds, and without the light, the second mercenary would not have left.

Play Example: The Experimental Setup Grows

Kepler, the astrobiologist, has just become a Senior Agent and has collected 30 XP since her promotion to Agent, plus 2 saved. She possesses Sample Collector (I) and Alien Life (II) from her pillar.

The Options. For Habitat (III, 8 XP) she needs, in addition to Alien Life, a level I node from a neighbouring discipline, i.e. from the Biochemist or the Physicist. She has none. So she must first look beyond the edge.

The Decision. She buys Field Pharmacy from the Biochemist (level I, 4 XP, neighbour, normal price) and then Habitat (8 XP). In addition, Measurement Series from the Physicist (level I, 4 XP), because for Bait at level IV she later needs a level II node from a neighbouring discipline and Field Disruption builds on Measurement Series. She saves the remaining 16 XP.

The Consequences. Kepler will never be a pure astrobiologist. She treats wounds, measures fields, and that is exactly what makes her so valuable in the field. Her player already knows what he will buy as a Veteran, and he also knows that for Bait she first needs a level II node from a neighbouring pillar. That is how the Experimental Setup is supposed to work.

Frequently Asked Questions

Can a Scientist learn all five pillars? Yes, but each foreign pillar only up to one level below their own, and non-adjacent pillars are more expensive. A Physicist who wants to learn the Cyberneticist pays 2 XP more for each node.

Why does level III require a foreign node? Because the Institute does not want narrow specialists. In play, the rule ensures that every Scientist can do something from their neighbours over time and that two Scientists in a cell complement each other instead of doing the same thing.

Do the methods count as nodes? No. They are not a prerequisite for nodes and cost nothing. Every Scientist can use them from day one.

How many tests should I include? As few as possible and one more than the Research Directorate would like. Each test advances a prototype and increases Contamination. A good rule of thumb: one test in the prototype that keeps the cell alive, and none in a prototype that you build only out of curiosity.

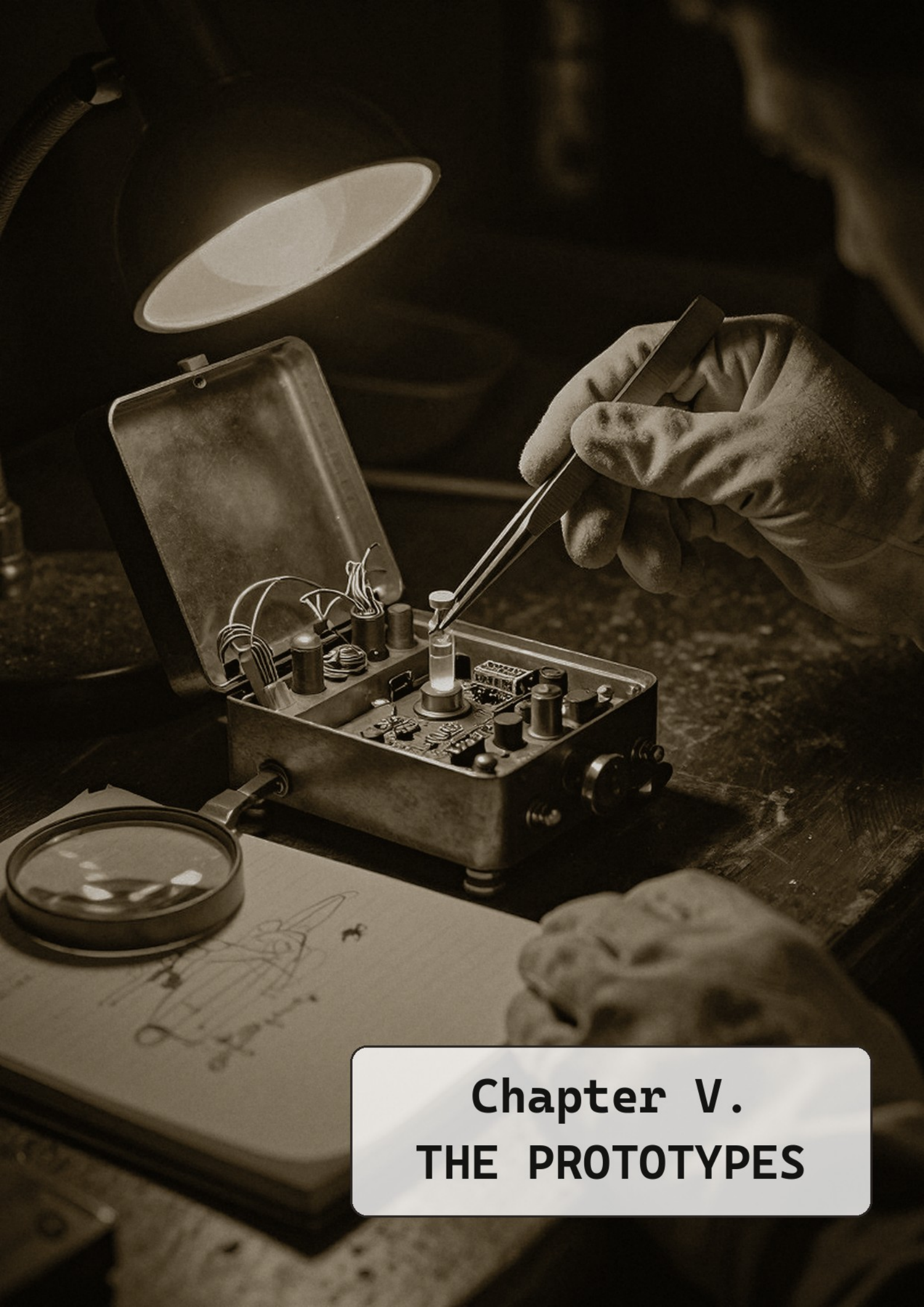
Can other classes buy nodes of the Experimental Setup? No. The Experimental Setup is the craft of the branch. However, an ally can operate a prototype from maturity 4 (Chapter V), and a Cyberneticist can install an implant in them.

How far does a hypothesis reach? As far as the question. The game master answers honestly with yes or no and may conceal what was not asked. Good hypotheses ask about connections: Is it the same source? Is it still here? Is it alive?

What happens to my prototype if my character dies? It gets a place in one of the two display cases in the entrance hall, and nobody dismantles it (Chapter V). Its samples go to cold storage.

What does my Scientist do when shots are fired? Seek cover, take full defence and watch. Anyone who can do nothing better in a combat round may use their action to observe and, after the combat, receives +1 die on the first analysis of what they saw. Scientists are often the only ones who remember the details afterwards.

May I repeat an analysis as often as I like? No. Once per scene, the control test helps. After that, the Scientist needs new material, more time or a better laboratory. Anyone who analyses the same sample three times in the field has usually used it up afterwards.



Chapter V. THE PROTOTYPES

The Prototypes

"A Psion has their helmet, a Thaumaturge their stone, a Soldier their silver, an Agent their legends. We have things that did not exist before us. And that sometimes do not know they are supposed to work."

Engineer, codename Schraube

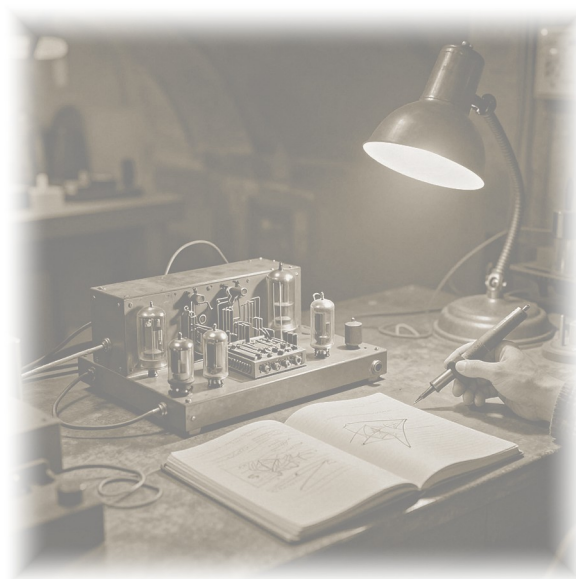
Every Scientist at O.D.I.N. works on something. A measuring device that does not exist yet, a serum no one has mixed yet, an implant, a weapon, a machine. At the Institute, these things are called **prototypes**, and they are the signature of the Science Branch.

A prototype begins as a sketch in a lab book and grows in the field. Every mission in which it is used provides data, every malfunction a lesson. Whoever works on a prototype long enough ends up holding something that no one else in the world possesses. Or something that explodes in their hand.

From the Lab Book to the Field

The Institute has a simple procedure for prototypes, which goes back to Wendland. Every Scientist may work on a limited number of their own prototypes. They register them with the Research Directorate, receive a number and a budget, and then they are on their own. A prototype belongs to the Institute, but the Scientist is the only one who can operate it. That is not written in any regulation. It is simply so.

Most prototypes fail. They work in the lab and not in the field, or in the field and not in the lab, or not at all. Those that survive get better, a little each mission. And a few become so good that the Institute builds them in series. The kinetic shields of the Techno-Stormtroopers were once the prototype of a physicist named Hofer. The resonance pistol of the Echo operatives was the prototype of Paul Mercier.



Types of Prototypes

When a Scientist registers a prototype, they choose its type. The type determines what it is good for.

Type	What it is good for	Typical skill
Detector	Locating, measuring, detecting	Perception, Physics
Weapon	Damage, especially against supernatural things	Energy weapons, firearms
Protection	Shielding, armouring, dampening	Engineering
Tool	Opening, repairing, building	Technology, Craft
Medicine	Healing, strengthening, neutralising	Medicine, Chemistry
Implant	Improve a body, including that of another	Cybernetics

Maturity

Every prototype has a **maturity** from 1 to 5. It shows how reliable it is and how much it achieves.

	What the prototype is	Reliability
1	Sketch	Works once per mission. Before each deployment D6: on 1 or 2 malfunction.
2	Laboratory sample	Works once per scene. Malfunction on 1 on the D6.

	What the Maturity prototype is	Reliability
3	Field prototype	Always works. Malfunction only on a botch.
4	Field-ready	Like maturity 3. An ally can operate it.
5	Masterpiece	Like maturity 4, plus a special property.

Effect Levels

What a prototype does depends on its maturity. The player chooses one effect at maturity 3 and may expand it at maturity 4.

Maturity Possible effect, one of them	
1 to 2	A simple function without game value: measure, display, open, light up. Useful, but without bonus.
3	+1 die on appropriate tests, or +1 damage for a weapon, or +1 armour for protection.
4	+2 dice on appropriate tests, or +1 damage and +1 die on the attack, or +1 armour and +1 die against a specific type of threat.
5	Like maturity 4, plus a special property from the list below.

Special properties for masterpieces: works against beings that ordinary means do not sense; also works in a rift; can once per mission turn a botch into a simple failure; has a second, different function of maturity 3; the Institute builds copies for the cell.

RULE: LIMITS

A character receives from prototypes together at most +3 dice on a single test and at most +1 armour, no matter how many they use.

Copies of a masterpiece have maturity 3 and only its basic effect. Each cell member can carry at most one copy, and it counts towards their limit of +3 dice.

What a prototype exactly does is determined jointly by the player and the game master when it is registered. One sentence is enough: "A detector that shows whether a person is psionically gifted." "A serum that slows beings from rifts." "A drone that listens in walls." The effect levels determine how much it brings in play. A prototype that can do everything is not a prototype, but a wish. The Research Directorate rejects such applications, and the game master should too.

How Prototypes Mature

RULE: GAINING MATURITY

A prototype gains 1 maturity when the Scientist has used it successfully in a mission, at most once per mission.

A prototype's maturity can never be higher than the Scientist's rank allows: Cadet 2, Agent 3, Senior Agent 4, Veteran or higher 5.

For maturity 4 and 5, the prototype needs a **sample**: supernatural material from a mission, installed or mixed in.

Maturity can never be bought with XP.

The number of prototypes a Scientist may work on at the same time depends on their rank.

Rank	Maximum number of prototypes
Cadet	1
Agent	2
Senior Agent	3
Veteran	4
Shadow Officer	5

Malfunctions

Prototypes fail. That is part of it. The Institute has an entire department that only evaluates malfunctions, and it is one of the busiest. Its head says every malfunction is an answer to a question nobody asked.

D6 What happens during a malfunction

1	The prototype works, but in reverse. The detector shows nothing, the serum strengthens instead of weakening.
2	It emits a loud sound, a flash of light or a shower of sparks. Everyone nearby now knows where the Scientist is.
3	It fails for the rest of the scene.
4	It fails for the rest of the mission and must be repaired in the lab.
5	It deals 2 damage to the Scientist. Armour does not apply.
6	It does something it should not do, and nobody knows why. The game master decides.

If a prototype with an installed sample malfunctions, a Contamination roll also follows (Chapter IV).



Samples

Without samples there is no research. Scientists collect everything that can be collected on missions: blood, tissue, dust, air from near a rift, splinters of things that are not from here. Most of it goes to the cold store in Bern. The Scientist keeps some for their prototypes.

Sample	Source	What it gives a prototype
Rift air	From near an open rift, in a pressure container	Detectors recognise rifts before they open
Ecto-plasm	From an apparition or a shadow being	Weapons hit invisible things
Crystal dust	From the Collegium, in exchange for a favour	Protection dampens magic and psi
Tissue	From a supernatural being	Medicine also works against supernatural poisons and diseases
Nanite residue	From a Nanotech Veteran, donated voluntarily	Implants heal themselves
Unknown	From a mission where nobody knew what it was	The game master decides. Often something good. Not always.

Every sample inside a prototype increases the Scientist's **Contamination** by 1. Anyone who does not want that hands in their samples at the cold store and makes do with maturity 3.

Customs

"You don't give your prototype a name. You do it anyway. You just never say it in the canteen."

Biochemist, codename Viola

- **The number.** Every prototype has a number from the Institute's register. Many Scientists know their numbers by heart, and those of their colleagues too.
- **The lab book.** Every prototype has its own lab book, in which every use, every malfunction, every change is recorded. A prototype without a lab book is considered a toy.
- **The christening.** When a prototype reaches maturity 3 for the first time, the Lab Coats in the canteen give it a nickname. The inventor has no say.
- **The display case.** In the Institute's entrance hall there is a display case with the prototypes that went into series production. Next to it stands a second, smaller one, with those that killed their inventor.
- **Never dismantle.** You do not dismantle another person's prototype. Not even if the inventor is dead. Then it gets a place in one of the two display cases.

Your First Prototype

D6	What you were working on when you arrived
1	A detector for something your colleagues outside considered superstition.
2	A medication that helped a single patient, and you do not know why.
3	A tool that opens locks that should not exist.
4	A weapon. You did not want to build one. It became one anyway.
5	An implant you inserted into yourself because nobody else wanted to test it.
6	A machine you designed in your sleep. You do not quite understand what it does.

The Second Display Case

The Institute's entrance hall was the only room under the mountain into which daylight fell, through a long shaft that reached to the surface. Schraube stood in this light, in front of the smaller display case, and looked at a device that looked like a radio from the sixties with a lens on the front.

The small label next to it said: *Prototype 0417. Detector for psionic emissions. Inventor: Dr. Martin Hofer, Physicist. In service 1968 to 1981.*

The year of death wasn't written there. It wasn't on any device in this display case. You simply knew that.

"He invented the shield," said a voice behind her. The Research Director, a woman with glasses from the seventies who had worked at the Institute for thirty years and had hired Schraube a year ago. "The kinetic shield the Stormtroopers carry. That was his second prototype. This was his first."

"What happened?"

"He built it to measure what psions transmit. That worked. Then he improved it so it also measures what psions receive." The Research Director looked at the device. "That worked too. He switched it on, in the lab, alone. They found him the next morning. He still had the headphones on."

Schraube said nothing for a while. She thought of her own prototype, a drone that was supposed to listen inside walls, and of the sample from the cellar in Graz that Viola had given her last week. She wanted to install it so the drone would also hear what was in the walls that was not from here.

"Why is it here?" she asked. "The display case. So we're afraid?"

"No." The Research Director shook her head. "So you know that someone was there before you. And that he got further than you think." She tapped lightly on the glass, above the lens of the old device. "Hofer heard

something that night. It's in his lab book, the last line. The lab book is with the Council. But I saw the line before they took it."

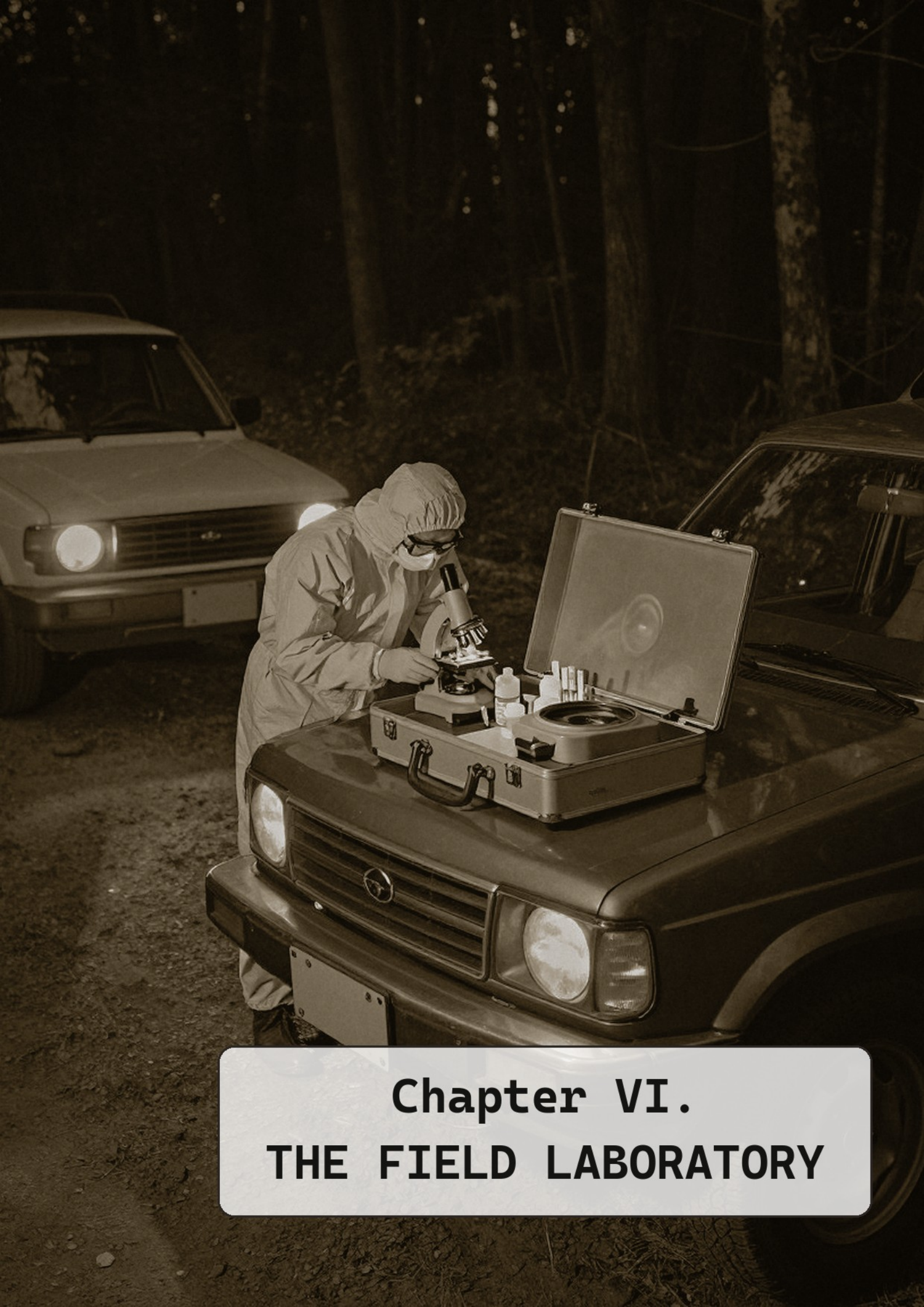
"What did it say?"

The Research Director looked at her for a long time, as if considering whether Schraube was ready. Then she said: "Thirteen."

She left. Schraube stood in front of the display case for a while longer, in the light from the shaft. Then she went to her lab, took the sample from Graz out of the fridge and brought it to the cold store. The drone stayed as it was.

This time, at least.





Chapter VI.
THE FIELD LABORATORY

The Field Laboratory

"A Soldier takes a weapon, an Agent a passport. I take forty kilos of measuring equipment and a cool box. Guess who knows what happened in the end."

Physicist, codename Planck

The following equipment supplements Chapter X of the core rulebook. Scientists receive it through their Hold's laboratory or directly from Bern. Most of it is not bought but requisitioned, and the Research Directorate is generous as long as data is delivered afterwards. The equipment of the individual disciplines is in their chapters.

RULE: REQUISITION

A Scientist can requisition equipment from this chapter at their Hold's laboratory instead of buying it. Common items are received immediately. Rare items are received from rank Agent for a mission if they write a request and the game master agrees. Very rare items only from rank Senior Agent and only with the approval of the Research Directorate.

Anyone who damages or loses requisitioned equipment writes a report. Anyone who writes two reports in a row only receives Common items next time.

Protection

Item	Effect
Grey protective suit	The suit without markings that Scientists wear when handling samples. Protection against poisons, diseases and rift air. Armour 1, -1 die on DEX tests. <i>Common</i> .
Beryllium vest	A light vest with beryllium inserts. Armour 1, +1 die against psionic detection. <i>Rare</i> .
Filter respirator	Protects for one hour against gases, spores and whatever blows out of rifts. <i>Common</i> .
Cold protection suit	For the cold store and for places where it suddenly gets cold. +2 dice on Endurance against cold. <i>Common</i> .

Analysis

Item	Effect
Field laboratory in a case	Microscope, reagents, centrifuge. Field analyses gain +1 die and take only five minutes. <i>Rare</i> .
Crystal scales	A precision balance based on Wendland's design. Shows whether a crystal is clear, cloudy or depleted and how much it still has. <i>Rare</i> .

Item	Effect
Ozone probe	Triggers when the ozone concentration rises. A rift opening within 20 m is indicated as soon as it opens. <i>Common</i> .
Spectrometer	+2 dice on analyses of substances and radiation. <i>Rare</i> .
Endoscope camera	A camera on a flexible 3 m cable. Sees into walls, pipes and coffins without opening them. <i>Common</i> .

Samples

Item	Effect
Cryobox	Keeps samples at -80 °C for 48 hours. Whatever lies inside does not move. Mostly. <i>Rare</i> .
Pressure vessel	For gases and rift air. Without it, rift air cannot be secured. <i>Rare</i> .
Sample case with beryllium	For samples containing crystal. Dampens their Whisper. <i>Rare</i> .
Seal vials	Twenty vials with screw caps and sealing tape. A sealed vial loses nothing, and no one can open it unnoticed. <i>Very common</i> .
Cold spray	Freezes a small sample in seconds. Small creatures hit by it freeze for one round. <i>Common</i> .

Weapons

Scientists rarely carry weapons, and most carry them badly. The Institute therefore issues weapons that do not have to kill and that suit what Scientists do anyway. Anyone who wants more gets the pistol from the core rulebook and an appointment on the shooting range.

Item	Effect
Taser pistol	Damage 2, range 10 m, Stunning (core rulebook, Chapter X). The standard weapon of the Lab Coats. <i>Very common</i> .
Dart pistol	Damage 1, range 20 m, Silent. A dart can carry an agent: toxin mixers, antidotes and serums also work at range with it. <i>Rare</i> .
Cold grenade	Area 3. Water freezes, machines stall. Creatures from rifts in the area roll with -2 dice on their next round. No one knows exactly why. <i>Rare</i> .
Plasma pistol	Damage 3, Penetration 2 (core rulebook). Physicists love it because they understand what happens inside it. <i>Rare</i> .

Data and Communications

Item	Effect
Data case	An armoured computer with a transcript of Project Map. +1 die on Investigation and Navigation when it concerns rifts, finds and their patterns. <i>Rare</i> .
Sensor buoy	A sensor in a steel housing. Remains in place and transmits temperature, pressure, magnetic field and ozone for 48 hours. <i>Rare</i> .
Institute laboratory book	Numbered, thread-bound, with one page for each day. No game value. Anyone who returns from an operation without a laboratory book must explain to the laboratory director why. <i>Very common</i> .

Medicine

Item	Effect
Emergency Medication Kit	From basic equipment: bandages, painkillers, adrenaline. Counts as a first aid kit for First Aid. Once per mission, an ally ignores the penalty for being injured for one scene. <i>Common</i> .
Antidote Kit	Twelve antidotes against known poisons. Against a known poison it works immediately, against a supernatural one not at all. <i>Common</i> .
Wound Sealant	Seals a wound in seconds. +1 die to Stabilise. <i>Common</i> .
Cooling Blanket	A silver blanket with cooling packs. A dying person lying in it loses 1 HP only every other round. Why this also works on wounds that are not from here, nobody knows. <i>Rare</i> .

The Transporter

Every larger hold has at least one transporter of the branch: a box van with refrigeration unit, field laboratory, emergency generator and beryllium inserts in the walls. From the outside it looks like a measurement technician's van, and the company on the side door really exists. In the transporter, analyses count as analyses in a Hold's laboratory, but take only half an hour. Whoever requests it must bring a driver who does not belong to the cell, or drive themselves and afterwards explain the mileage.

THE INSTITUTE'S PACKING LIST, PAGE 1

Laboratory notebook. Two pens, one of them waterproof.

Gloves, three pairs. Seal tubes. Cooling packs.

Torch with spare battery.

Ozone probe, switched on before you enter the room.

Cold spray. The number of the laboratory, by heart.

Something to eat. Operations last longer than planned.

No sample you cannot label.

The Workshop

Besides the laboratories, every larger hold has a workshop of the Science Branch, in which prototypes are built, repaired and modified. It is usually run by an Engineer who knows every prototype in the Hold and has already repaired most of them.

Modifications to prototypes take three days and require a test of INT + Engineering against the stated difficulty. A prototype can carry at most two modifications. Repairs after a malfunction 4 take one day and succeed with INT + Engineering or Technology against Doable (2). If they fail, the prototype is not operational until the next mission.

Modification	Effect	Difficulty
Robust Housing	The prototype survives falls, water and shots. Malfunction 5 becomes 3.	Doable (2)
Second Power Source	Malfunctions 3 and 4 do not count if the Scientist spends an action to switch over.	Doable (2)
Cooling Jacket	An installed sample stays cold. After a malfunction, a Contamination roll follows only on malfunction 6.	Hard (3)
Data Recorder	The prototype records what it experiences. +1 die to the next analysis of the phenomenon in which it was used.	Doable (2)

Modification	Effect	Difficulty
Camouflage	The prototype looks like an everyday object. Agents like that.	Hard (3)
Remote Control	The prototype can be triggered from 50 m away.	Hard (3)

The Engineer who runs a workshop may carry out modifications to other people's prototypes, but only if the inventor stands next to them. This is not a rule of the Institute. It is a rule of the Engineers, and it is older than the Institute.



The Cold Store

The Cold Store is the memory of the branch. It lies in the lowest part of the Institute, in nine tunnels named after decades, and it contains every supernatural sample that O.D.I.N. has secured since 1948: blood, tissue, dust, rift air in pressure containers, things in lead boxes that no one opens any more, and next door, in a separate tunnel outside the cold, the terrariums of the astrobiologists. Every sample has a number that begins with K, followed by the year and a sequential number. The oldest samples lie at the top, the youngest at the bottom, because since the Sixties they have built downwards when there is no more room at the top. Whoever hands in a sample today rides the lift longer than anyone before them.

The Cold Store is managed by a single biochemist, the **Custodian**, who has worked there since 1979 and knows every sample by name. She has three rules: Nothing leaves the Cold Store without a signature. Nothing enters without a record. And the Cold Store stays cold, no matter what happens. When the power failed for eleven minutes in 2003 and the emergency generator

did not start, the Custodian stood with a torch in front of the door of the lowest tunnel and told no one what she heard.

RULE: THE COLD STORE

A Scientist can request a sample from the Cold Store between two missions, for a research project or for a prototype. The Research Directorate decides whether to release the sample. A requested sample counts as one's own, also for Contamination.

Whoever hands in their own sample to the Cold Store receives its number and the right to request it back. In return, their next request for a rare item is approved without further enquiry.

The Nine Tunnels

The tunnels of the cold store are named after the decades in which their samples were secured, from the forties to the twenties. In the Fifties tunnel lies the tissue from Cornwall, in the Seventies tunnel the samples that came from Nordlicht in 1977, in lead boxes that no one opens. The Tens tunnel is the largest, because with the Accumulation more samples came than in all the decades before. The Twenties tunnel is the deepest and the youngest, and it gets a bit longer every year.

Beneath the lowest tunnel there is only rock. It has said so on every plan of the Institute since 1979. The Custodian has signed the first of these plans and every later one too, and she says nothing about it.

Artefacts of the Branch

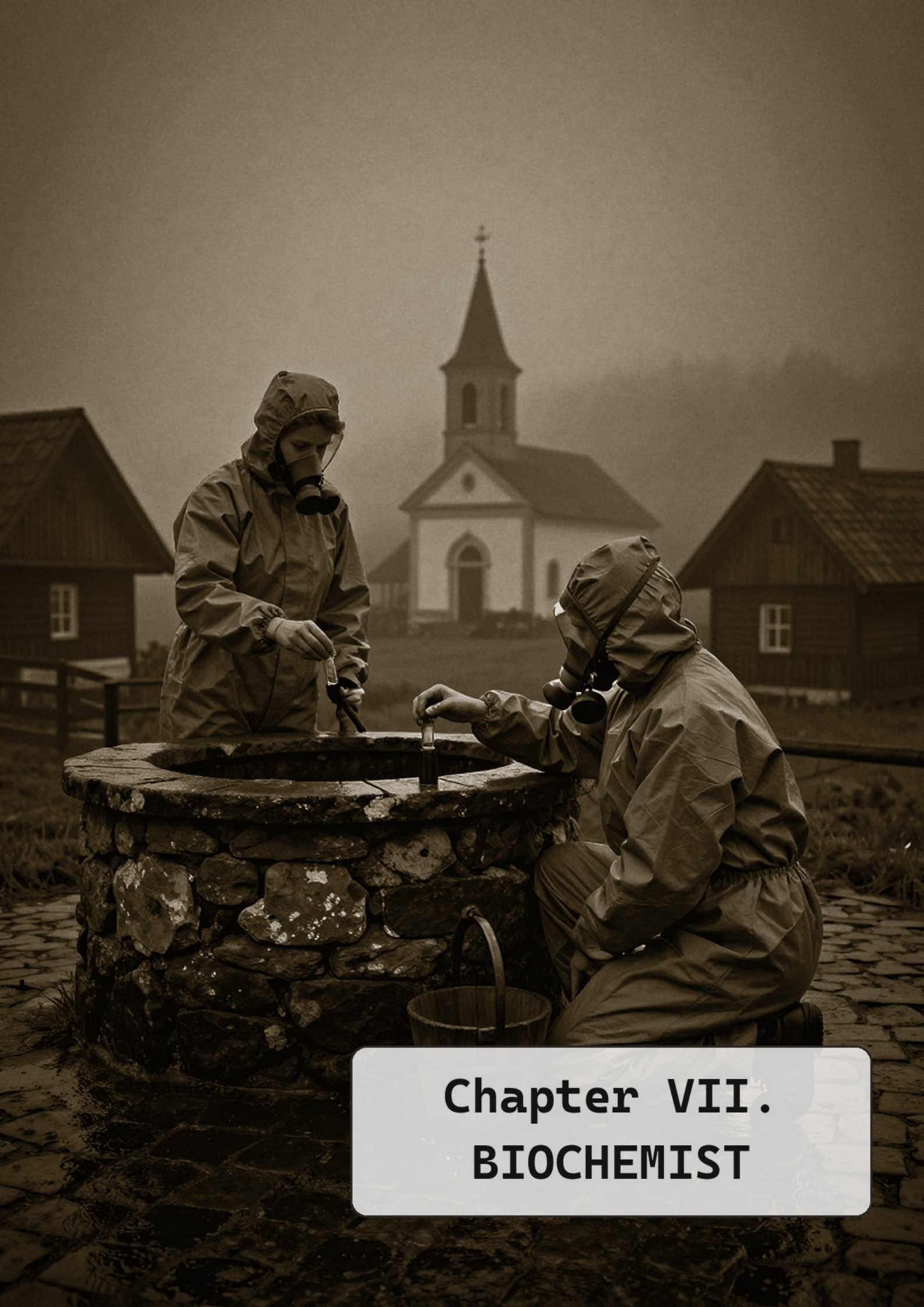
The Science Branch keeps some devices that are no longer built and cannot be replicated. They are issued only to Veterans and above, only for one mission. The skulls indicate the **danger** of an artefact, from one to five (Core Rulebook, Chapter X). Whoever uses an artefact pays its **price**, regardless of their class.



Artefact	Effect
Wendland's Scales ☠️☠️☠️☠️☠️	The precision scales with which Wendland weighed his first crystal in 1948. Whoever places an object on it learns whether it is of supernatural origin and how long it has existed. Price: Whoever weighs something from a rift gains +1 Contamination.
The Nordlicht Probe ☠️☠️☠️☠️☠️	A measuring device that ran in Nordlicht on the night of 14 February 1977. It still records values that no one can interpret. Near a rift, it shows how many people are on the other side. Price: Whoever reads the number suffers 1 strain and rolls for Contamination.

Artefact	Effect
Measuring Case 1957 ☠️☠️☠️☠️☠️	The device of the first rift measurement. Whoever uses it at an open rift learns its age and whether it formed by itself or was opened. Price: +1 Contamination per measurement.
The First Cap ☠️☠️☠️☠️☠️	The cap from 1949, with Marek's initials in the leather. A Psion who wears it hears nothing for an hour, not even themselves. Only with the consent of the Psionic Core. Price: Whoever takes it off hears everything at once for a minute: 2 strain.
Gysin's Soldering Iron ☠️☠️☠️☠️☠️	With it, any repair that would otherwise need a laboratory succeeds in the field, even after a malfunction 4. It never gets completely cold. Price: Whoever uses it burns themselves: 1 HP that only heals after the mission.
Hofer's Detector ☠️☠️☠️☠️☠️	Prototype 0417. It stands in the second display case. It is not issued. No one has ever requested it. Price: Unknown. No one has used it since Hofer died in 1981.

Whoever requests an artefact first writes a report on how they intend to bring it back. The Research Directorate reads the reports more carefully than the requests. The artefacts themselves are kept in a room next to the entrance hall, behind a glass door. New Lab Coats often stand there for a long time, and the Research Director says that is exactly why the door is made of glass.



Chapter VII. BIOCHEMIST

Biochemist

"Poison and remedy differ only in the dose. And in the intent."

Biochemist, codename Viola

The Nature of the Discipline

Biochemists are the doctors and pharmacists of the cells. They treat wounds, analyse poisons, mix antidotes and find out what someone died of, or why they do not die although they should. Their work often only begins when the fight is over, and it rarely ends before the sun rises.

Biochemists are also the Scientists who work closest to the supernatural, in the literal sense: they have it in the test tube, under the microscope, in the blood of their patients. Many of them therefore wear gloves, even when they do not need any.

BIOCHEMIST AT A GLANCE

Bonuses: +2 INT, +1 WIS. **Skills:** +2 Chemistry, +1 Medicine, +1 Biology. **Equipment:** Scientist kit, reagent set, portable bio-scanner (+1 die on Biology for analyses).

Medical Emergency Care (passive): If they succeed at first aid, the patient heals 2 additional HP.

Rapid Analysis (passive): They analyse unknown substances in half the time and with +2 dice.

Toxin Mixer (active, 1x per scene): They prepare a weapon or ammunition with poison. The next hit deals +1 damage, and the target must pass a test on CON + Toughness against Doable (2) with -2 dice or lose their next action.

Full rules: Core Rulebook, Chapter IV.

The Night Shift

The field hospital was a gymnasium in a village in Slovakia, and the cots stood in three rows between the basketball hoops. On seventeen of them lay people who had not woken up for two days. On the eighteenth sat Viola and wrote.

It had started with a well. The village had had the same well for a hundred years, and three days ago someone had seen something glittering in the water. After that, everyone who had drunk from the well had begun to sleep. Not to die, not to fever, only to sleep, deeply and soundly, with open eyes.



Viola had tested everything she had in the field laboratory in two days. Blood, urine, cerebrospinal fluid, water from the well. The water contained traces of something that her spectrometer identified as crystal dust, although it was not crystal dust. The blood of the sleepers contained the same. And their brainwaves oscillated in a rhythm, evenly, in all seventeen simultaneously.

"They are dreaming the same thing," said Echo, the telepath of the cell, a young woman with a helmet, who had been pale since morning. "I do not hear it clearly. Only that it is the same dream."

At two o'clock in the morning Viola had an idea, and it was not a good one. She had a sample of the well water, a sample of the blood and an antidote to a narcotic that worked in a similar way. If she added a part of the crystal dust that was none to the antidote, it might be that it interrupted the rhythm. It might also be that it amplified it.

She tested it on herself. One drop, on the tongue.

For ten minutes nothing happened. Then she heard it. A melody, very quiet, very far away, like from a radio in another house. Seventeen voices humming the same thing. And beneath it, even quieter, an eighteenth that did not belong.

She spat, drank water, wrote down what she had heard, and then she diluted the mixture by half.

At four o'clock she gave the first dose to an old man in the first row. At half past four he closed his eyes. At five he woke up, looked around and asked why he was in the gymnasium. He remembered nothing.

By morning she had woken all seventeen. None remembered the dream. Echo said it was quiet now.

Viola went out to the well, in the dawn, and looked into it. The water was clear. Nothing glittered. In her laboratory notebook that morning she wrote a line under the protocol that she later never transferred into a report:

Eighteenth voice. Not from here. Not from the sleepers. Ask whom?

The Doctors of the Branch

Biochemists had existed in the Institute from the beginning, but they were long the stepchildren. Wendland was a physicist, and the first years belonged to the measuring instruments. The only female doctor among the first four, Dr. Lotte Hainz from Vienna, treated the injured and had hardly any time for research. That changed after Kiruna, when the Lab Coats examined the dust in the incendiary ammunition, and after the first rift measurements, when suddenly tissue, blood and spores came into the Institute that no one could explain.

The cold store is the realm of the biochemists. They built it in the sixties, and they administer it to this day. Every sample in it has a number, a protocol and a biochemist who is responsible for it. Some samples are older than the people who are responsible for them.

Since Asklepios, the discipline has been split. Some biochemists worked on the programme, some refused. The two groups work together because they have to. In the canteen they sit at different tables, and anyone new only notices when they have sat down at the wrong one.

Today the biochemists provide most of the doctors in O.D.I.N.'s infirmaries, and many agents know only the woman or man who stitched their wound after a mission from the entire discipline. The biochemists are not unhappy about that. Whoever has once removed a bullet from a Soldier never hears another remark about lab coats from them.

Legend: The Apothecary of Solberg

The first biochemist to deal with the supernatural was not a scientist of the Institute. She was the apothecary of the village on Solberg Lake, and on the morning of 3 December 1938 the milkman fetched her because she was the only person in the place who knew anything about medicine. In the dining hall of the sanatorium, thirty-one children sat in a circle and sang, and there was no trace of the adults of the house. She did what she could: she gave the children warm milk with honey

during the breaks, counted their pulses and wrote everything down, for three days and nights, as the only guard in the house, until the children stopped. Her report, twelve pages in Swedish handwriting, is the oldest medical document on psionics that O.D.I.N. possesses. Wendland had it translated in 1950 and hung a copy in his office. Her name has not been passed down. In the Institute she is known only as the apothecary.

The First Sample

D6	The first supernatural sample you held in your hand
1	Blood that did not clot at room temperature. Not even after a week.
2	A piece of skin from a human that formed patterns under the microscope.
3	Water from a well in which everyone dreamed.
4	A poison that killed only people who had once touched a crystal.
5	An antidote that someone else had mixed, against a poison that did not yet exist.
6	Sample Seven. Or one of its sisters.



A Day in the Life

Biochemists start the day in the laboratory. They check the samples that have run overnight, evaluate blood counts, mix medicines for the infirmary. Many also work as doctors in the Hold, care for the injured, treat Soldiers after missions, talk to Psions about their headaches.

On missions they are usually at the back, with the cool box and the medkit. They keep the cell alive, and as soon

as things quiet down, they take samples. Of everything. Of walls, floors, beings, sometimes of comrades. A biochemist who returns from a mission without a sample has either found none or is injured.

In the evening they write. Every sample needs a report, every patient a file. And many biochemists have a second book, in which they write what does not belong in the report.

The Induction

Biochemists almost always arrive with a doctorate in medicine, chemistry or biology. The Institute teaches them what no university teaches: how to handle samples that fight back. The induction lasts four months and takes place for the most part in the cold store, under the supervision of an experienced biochemist. The newcomers learn to take off gloves in the correct order, to seal a sample in forty seconds and to label it in the dark.

The final examination consists of fetching a sample from the cold store, analysing it and putting it back, alone, in one night. The instructor chooses the sample. Nobody tells the candidate which one it is. Most only find out when they read the report attached to the sample.

Play Styles

The following play styles are suggestions, not requirements. The nodes mentioned are at the end of the chapter, the methods in Chapter IV.

Play style	Description
The Doctor	She keeps the cell alive. Nodes: Field Pharmacy, Serum, Last Transfusion.
The Analyst	He finds out what one is dealing with, from blood, dust and traces. Nodes: Antidote, Read Metabolism, plus Sample Collector from the Astrobiologist.
The Poisoner	Toxin Mixer, prepared ammunition, antidotes. Combines well with Chemistry, the dart pistol from Chapter VI and the Soldier of the cell.

RULE: THE SECOND BOOK

A biochemist who keeps their second book after a mission, that is, writes down what does not belong in the report, may ask the game master one question about an observation from the last mission at the start of the next mission. The answer is honest, but not necessarily reassuring.

RULE: SELF-EXPERIMENT

A biochemist can test an unknown substance on themselves. They immediately learn what it does, and gain +2 dice on the production of an antidote. The game master rolls a D6: on a 1, the substance affects them, fully.

The Price

Biochemists pay with their distance. They have seen so much blood, tissue and death under the microscope that many eventually regard people as samples. They notice it themselves, usually too late. And they pay with the knowledge of what is in their samples. No biochemist who has worked in the cold store for more than a year still drinks water from a well.

OPTIONAL RULE: THE VIEW THROUGH THE MICROSCOPE

If a biochemist fails a horror test while examining a dead or dying person, they may distance themselves: they suffer no strain, but they see the person only as a sample. Until the end of the mission, they roll with -1 die on Insight and Persuasion.

D6 What the samples have cost you

- | | |
|---|--|
| 1 | You no longer drink water from wells, springs or other people's glasses. |
| 2 | You count the pulse of people you talk to, without meaning to. |
| 3 | You labelled a dead person before you wept for them. |
| 4 | You wear gloves, even at home, even when cooking. |
| 5 | Your hands smell of disinfectant, no matter how often you wash them. |
| 6 | You dreamt of a sample, and in the morning it lay differently in the fridge. |

In Play

- **You keep the cell alive.** Wounds, poisons, diseases. And afterwards you take samples.
- **Ask what something is made of.** Your analyses provide the clues that others overlook.
- **The question for your character:** Whom could you not save, and what did you write in your second book afterwards?

Playing with Other Classes

The biochemist is the natural partner of the **Psychic Healer** among the psions: one heals the body, the other the mind, and together they keep almost anyone alive. With an **Alchemist** from the Collegium, they argue about methods and still mix the best antidotes. A **Soldier** is pleased about prepared ammunition, an **Investigator** about every analysis from the crime scene. And an **Assassin** among the agents asks them questions about poisons that they would rather not answer.

From the Files

MISSION REPORT, EXCERPT

Case GA-2280, Slovakia. 17 people in a village in persistent sleep.

All 17 woken by an improvised antidote. No lasting damage.

Note from the biochemist: self-experiment carried out. No side effects detectable.

Note from Research Directorate: self-experiment not approved. Request protocol.

COLD STORE, INVENTORY LIST, EXCERPT

Sample K-1957-003. Tissue, origin Cornwall rift.

Last measurement: growth 0.4 mm per year, stable since 1957.

Note from the Custodian: the sample has grown faster this year for the first time.

INFIRMARY, FILE NOTE

Patient: Agent ECHO. Since case GA-2280, headaches and sleep disturbances. She states that she hears a melody at night.

Note from the treating biochemist: a patient in Naples, who is cared for by the doctor from Aria's cell, hums the same melody. The two do not know each other.

EXAMPLE: VIOLA AFTER THE FIGHT

After a fight in a boiler room, Moth is at -1 HP and dying, Brandt still has 5 of 12 HP. Viola stabilises Moth with an action, INT 5 and Medicine 4 against Doable (2). White: 5, 2, 6, 1, 3 gives 2 successes, coloured: 4, 5, 1, 2 gives 2. Moth remains unconscious at 0 HP.

Then first aid with the emergency medication set, against Easy (1). For Brandt, she rolls 4 successes, he heals 3, the maximum, and Medical Emergency Care adds 2: he is back at 10. For Moth, it is 3 successes, so 5 HP, and Moth wakes up.

Finally, Viola analyses the black secretion on the wall. It is supernatural, Hard (3), but she has her lab kit with her and no penalty. Quick Analysis gives her +2 dice and halves the time to five minutes. She rolls 6 successes, 3 margin, a critical success: she knows what it is, where it comes from, what it does and how to stop it. And that it is still alive.

Questions for Your Biochemist

D6 What your character does not yet know

- | | |
|---|---|
| 1 | Whom the eighteenth voice belongs to |
| 2 | Who put the glittering something into the well |
| 3 | What happened to the other eleven samples from Vienna |
| 4 | Why sample K-1957-003 is growing faster |
| 5 | What the apothecary of Solberg was called |
| 6 | What she will write next in her second book |

Equipment of the Discipline

Item	Effect
Institute Emergency Case	Like a medkit, plus agents against supernatural poisons. First Aid +1 die. <i>Rare</i> .
Serum Belt	Six ampoules in a flat belt under the clothing. Drawing a prepared agent costs no action. <i>Rare</i> .
Second Book	A notebook without imprint. No game value except the rule above. Every biochemist has one.
The Apothecary's Protocol	A transcript of the twelve pages from Solberg. +1 die on Medicine for psions. <i>Very rare</i> .

The Others and Us

About the Astrobiologists: "They bring the samples, we find out what they do to people. We need each other."

About the Physicists: "They measure what the world is made of. We measure what it dies of."

About the Engineers: "Without them there would be no field lab. Without us there would be no Engineers left."

About the Cyberneticists: "We heal the body. They replace it. Since Asklepios we know what that can cost."

Figures of the Discipline

Dr. Ines Albrecht. Head of Asklepios, biochemist, at the Institute for over twenty years. Friendly, precise and the loneliest person under the mountain. Anyone who talks to her notices that she talks about everything except the twenty-eight.

The Custodian of the Cold Store. An older biochemist who has worked in the cold store since 1979 and spends more time there than anywhere else. She knows every sample by name. Some samples, she says, know her too.

The Doctor from Naples. A young biochemist who works for Aria's cell and investigates rumours about children who sing in their sleep. He requested the well samples from Slovakia. They were denied to him. Since then he writes letters to Viola, on paper, because he says the Hold's lines are listening.



THE PROTOCOL OF THE APOTHECARY, LAST PAGE, TRANSLATION 1950

Third day. They stopped, all at once, in the middle of the sound.

I laid my hand on each child's forehead. No fever. Pulse calm, the same in all of them, 64.

A girl asked me whether the woman in the cellar may sleep now. The house has no cellar.

Example Character: Viola

Biochemist, Cadet. Dr. Viola Brenner, 41, ran a laboratory for infectious diseases in Vienna until a sample from a village in the Romanian Carpathians began to move. She is the only one who left the laboratory alive. Her story is told in the Prologue.

Viola	Biochemist, Cadet
Attributes	STR 1, DEX 2, CON 2, INT 5, WIS 4, WIL 3, CHA 2, MAN 1, COM 4
Skills	Chemistry 5, Medicine 4, Biology 4, Perception 4, Academic Knowledge 3, Stress Management 3, Dodge 3, Technology 2, Investigation 2, Firearms 2, Toughness 2, Mental Resistance 1
Values	HP 10, Strain Threshold 11, Initiative 2, Defence 2
Abilities	Emergency Medical Care, Rapid Analysis, Toxin Mixer

Viola	Biochemist, Cadet
Prototype	No. 2291, Medicine, Maturity 1: a serum intended to slow creatures from rifts for one round
Drive	Protector. As archetype: The Healer

Equipment: Scientist basic equipment, Scientist Kit, Reagent Set, Bio-Scanner, grey protective suit, second book. Starting funds €9,000.

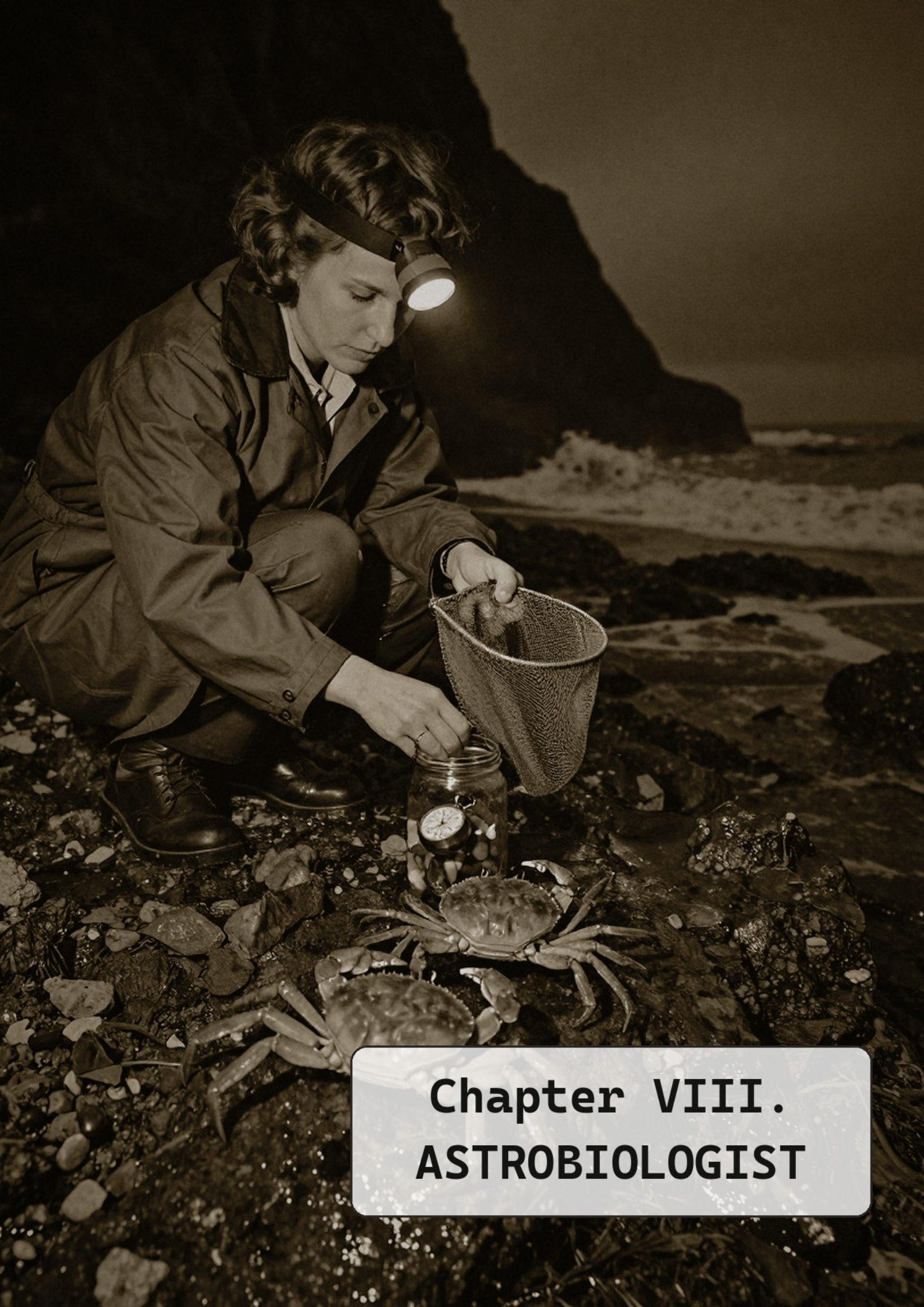
How to play Viola: You keep the cell alive and find out what you are dealing with. You prepare Brandt's ammunition before the fight. You are thorough, patient and bad at lying. And you write at night in a book that no one is supposed to read.

The Path Through the Experimental Setup

Rank	New Nodes and Increases
Agent (20 XP)	Field Pharmacy 4, Antidote 6, Sample Collector from the Astrobiologist 4. She saves the remaining 6 XP. Second prototype.
Senior Agent (50 XP)	Read Metabolism 8, Measurement Series from the Physicist 6, Alien Life from the Astrobiologist 6, Medicine to 5 for 10. She saves 6 XP. Third prototype.
Veteran (100 XP)	Serum 10, Field Disruption from the Physicist 8, Biology to 5 for 10, Chemistry to 6 for 12, Stress Management to 4 for 8. Fourth prototype.

The Pillar in the Experimental Setup

Level	Node	Effect
I	Field Pharmacy	Passive. First Aid heals 1 HP more and gains +1 die.
II	Antidote	After an analysis of ten minutes, the biochemist produces an antidote against a poison or a disease they have seen on this mission.
III	Read Metabolism	From blood, saliva or tissue they recognise possession, nanites, psionic activity or crystal contact. One sample is enough.
IV	Serum	Once per mission, an ally is immune to poisons and to horror up to level Disturbing (2) for one scene.
V	Last Transfusion	Mastery. Once per mission, they bring back an ally who died in this scene. They stand up with half HP. Afterwards 1 strain.



Chapter VIII. ASTROBIOLOGIST

Astrobiologist

"We are not alone. We are just not important enough to be visited. Mostly."

Astrobiologist, codename Kepler

The Nature of the Discipline

Astrobiologists search for life where there should be none. Originally this was a science for distant planets and the deep sea. At O.D.I.N. it is the science of all life that is not from here, whether it comes through rifts or not. Astrobiologists study beings, collect samples, understand environments in which humans should not survive. They are the Scientists who come into contact with the supernatural most often, and those who fear it least.

They are also the Scientists who collect the most. The cold store in Bern is half filled with samples from Astrobiologists, and the other half consists of samples that Astrobiologists have given to the biochemists.

ASTROBIOLOGIST AT A GLANCE

Bonuses: +2 INT, +1 WIS. **Skills:** +2 Biology, +1 Xenobiology, +1 Survival. **Equipment:** Portable laboratory, insulated sample containers, field scanner.

Sample Analysis (passive): +2 dice on Biology and Xenobiology when examining samples.

Alien Adaptation (passive): Survival tests in alien or hostile environments are one step easier.

Environmental Resonance (passive): +2 dice on Perception to detect traces of alien life, energetic and chemical anomalies.

Full rules: Core Rulebook, Chapter IV.

Station Halvorsen

The research station lay on the ice sheet of East Antarctica, three thousand kilometres from the nearest hospital, and in winter it was dark there for twenty-four hours. Dr. Amara Nwosu had been at Station Halvorsen for seven months when the drilling at a depth of two thousand metres brought up something that did not consist of ice.

It was a drill core, fifteen centimetres long, clear as glass, with inclusions in it that looked like tiny, frozen bubbles. Under the microscope they were not bubbles. They were cells. Organised, structured, arranged in patterns that

Amara knew from no textbook. And they were a million years old.



She should have reported it, to the institute in Cambridge that paid for the drilling. She did not, because she knew what would happen then: the drill core would be flown to England, others would examine it, and she would end up in the acknowledgements of a paper. So she examined it herself, at night, in the station's small laboratory, while the others slept.

On the third night the cells moved.

Not much. Under the microscope, at room temperature, they moved a little closer together, like people warming each other in the cold. Amara watched for two hours and wrote everything down. Then she put the drill core back in the freezer.

On the fourth night, the station's radio operator heard a voice on a frequency that nobody used. It said a sequence of numbers, over and over. He wrote it down and put the note on the table in the mess, as a curiosity. Amara saw it at breakfast. The sequence of numbers was the sample number she had given the drill core, in her private notebook, which she had shown to no one.

She went to the laboratory, took the drill core out of the freezer, carried it outside and lowered it into the hole from which they had taken it, two thousand metres deep, into the darkness. The drilling team thought she had gone mad. The voice on the radio fell silent in the same hour.

The first plane of the season landed in October, and two of the passengers were on no list. They wore grey suits, asked about the drill core and listened to what Amara

had done. Then one of them asked if she might see her notes.

Amara showed them to her. The woman read through them in an hour. Then she closed the notebook and said: "You brought it back. Why?"

"Because it wanted to go home," said Amara.

The woman nodded, as if that were a scientific answer. Perhaps it was one.

The Collectors

Astrobiology is the youngest discipline in the Institute. Until 2011 there was no separate department, only biologists who were interested in the strange samples from rifts. Pennington was one of them, and there were never more than half a dozen.

Since 2011 that has changed. With the increase came more rifts and more samples, and the Institute needed people who knew how to study a being that is not from here without killing it or being killed by it. Astrobiology became a separate discipline, with its own laboratory and its own tunnel next to the cold store.

Astrobiologists are today the ones who go closest to a rift on a mission. They carry pressure containers for rift air, nets, cryo boxes, and they have a rule of thumb that Pennington established: one never goes further than to the edge, and one never stays longer than ten minutes.

Astrobiologists also have the most friends outside the branch. They work with the Invokers of the Collegium, who want to know what lives behind the rifts, with the Paranormal Detectives, who search in the same places, and with the Shadow Paratroopers, who take them to where the tracks end. And they are the only ones who do not take the canteen joke about themselves amiss: The other Lab Coats measure what they do not understand. The astrobiologists feed it.

Legend: The Collector of Cornwall

Dr. Margaret Pennington was a marine biologist in Plymouth when a rift opened on the coast of Cornwall in 1957, and she was the first to wade into the water with a net up to its edge while Wendland set up his measuring instruments on the cliff above. She brought out what strayed to the edge of the rift in the first ten minutes: algae that were not from here, a kind of crab with too many legs, a piece of tissue that still lies in the cold store today and grows a little every year. She was the first astrobiologist of the Institute before the word existed. She died in 1993 in a nursing home in Plymouth. Her last

question to the carers was whether anyone had checked on the 1957 sample.

The First Life

D6	The first life that was not from here
1	An ice core with cells that moved.
2	Plants that grew in a cellar without light, in circles.
3	An insect with too many legs at the edge of a rift.
4	A fungus that spread only where people had spoken in their sleep.
5	A deep-sea fish that swam in an aquarium in Lyon next to a crystal.
6	Something that examined you while you examined it.

A Day in the Life

Astrobiologists spend their days with creatures that should not exist. They feed, observe, measure, document. In the Institute there is a tunnel with terrariums and aquariums in which things live that came out of rifts and did not want to or could not go back. The astrobiologists look after them. Some give them names.

On operations they go first, with the measuring instruments. They know how to recognise a foreign being, which environments are dangerous, and they know when to turn back. The last is the most important. Pennington summed it up in a sentence that hangs in every laboratory of the discipline: *Curiosity is not a protective suit*.

In the evenings they sit over the records of their animals. Most astrobiologists keep a list with the names they have given to the beings, and a second with the names of the beings that have died. The second list is longer. Those who have been at it long enough have a third, which they show to no one: the beings that have escaped.

The Induction

Astrobiologists come from biology, marine research, polar research, sometimes from veterinary medicine. The induction lasts four months and takes place half at the Institute, half in the field. New astrobiologists accompany an experienced colleague on at least three rift operations before they are allowed to collect alone.

The examination is Pennington's rule: the candidate goes to the edge of the small rift in the Institute, takes a sample and comes back within ten minutes. Anyone who stays longer is brought back and fails. Most fail the first

time. Curiosity is stronger than the clock. Anyone who stays too long again the second time becomes a biochemist, and the biochemists do not hold it against them.

Play Styles

The following play styles are suggestions, not mandatory. The nodes mentioned are at the end of the chapter, the methods in Chapter IV.

Play Style	Description
The Collector	They fetch samples where others do not go. Nodes: Sample Collector, The Other Side.
The Connoisseur	They recognise beings, their weaknesses and their behaviour. Nodes: Alien Life, Bait, plus the hypothesis under the methods.
The Survivor	They lead the cell through environments where humans have no business being. Nodes: Habitat, combined with Survival.

RULE: PENNINGTON'S TEN MINUTES

An astrobiologist who goes to the edge of an open rift gains +2 dice on all tests to secure samples or recognise beings as long as they do not stay longer than ten minutes. If they stay longer, they make a horror test against Uncanny (1) every further minute, and their Contamination is 1 higher until the end of the mission.

RULE: CATCH ALIVE

An astrobiologist can capture a supernatural being alive if it is smaller than a cat and they have a suitable container. Test DEX + Xenobiology against Hard (3). A living captured being is a sample that develops itself further. The game master decides where to.

EXAMPLE: KEPLER AT THE EDGE

In a barn in Friesland, a rift stands open, small and silent. Kepler walks to the edge, her ten-minute timer running. Environmental resonance gives her +2 dice on Perception: she notices a trail of slime on the ground that leads into the rift and back out.

At the edge sits a small creature, translucent, with too many legs. Kepler wants it alive: DEX 3 and Xenobiology 3, plus +2 dice for Pennington's ten minutes, against Hard (3). She rolls 4 successes, and the creature sits in her sample container.

After nine minutes she turns back. The timer vibrates as she reaches the barn door. Behind her the rift closes, and from the container comes a soft tapping.

The Price

Astrobiologists pay with their closeness. They go closer to rifts than any other Scientist, and they bring things along that one better not bring. Many have stories of samples that would not stop growing in the cold store, of creatures in terrariums that watched them when they were still in the lab at night. And some astrobiologists eventually notice that they understand the creatures better than their colleagues. That is the moment when Pennington would have said: time to go back.

OPTIONAL RULE: TOO CLOSE

An astrobiologist who has observed a creature for at least one hour senses its next action. They gain +1 die on all tests against this creature. If it dies in their presence, they roll a horror test against Eerie (1), even if they killed it themselves.

D6 What your closeness has cost you

- | | |
|---|---|
| 1 | You speak to plants, and sometimes you wait for an answer. |
| 2 | You cannot look at an aquarium without searching for its edge. |
| 3 | Your timer vibrates after ten minutes, even when you have taken it off. |
| 4 | You gave a creature a name, and it turned around afterwards. |
| 5 | You miss the cold, and you do not know which one. |
| 6 | You sometimes dream from the perspective of something with too many legs. |

In Play

- **You are the expert for what is not from here.** Creatures, samples, alien environments.
- **Go ahead, but not too far.** You recognise dangers earlier than the others, and you know when one must turn back.
- **The question for your character:** What would you do if one of the creatures asked for help?

Playing with Other Classes

The Astrobiologist is the natural partner of every **Investigator**, especially a Paranormal Detective: they meet at the same places, often at the same corpses. With an **Invoker** from the Collegium, the question of what lives behind the rifts connects them. A **Shadow Paratrooper** brings them to places no one else reaches. And a **Telepath** can tell them whether a creature thinks before they capture it.

From the Files

MISSION REPORT, EXCERPT

Case GA-2230, Antarctica. Return of a drill core by an external scientist.

The drill core has remained at a depth of 2,000 m. Recovery is not recommended.

Addendum: The scientist was recruited.
Codename KEPLER.

INSTITUTE, OBSERVATION LOG

Terrarium 9. The creature turned away from the north for the first time tonight. It lies flat on the floor of the terrarium, its head pointing downwards.

Note: Compare direction with Project Map.

PROJECT MAP, RESPONSE TO REQUEST

Comparison not possible. The direction points to no place on the map. It points into the mountain.

Note from the Research Directorate: Request closed.

Questions for Your Astrobiologist

D6	What your character does not know yet
1	Who said the sample number on the radio
2	What waited for the drill core at a depth of two thousand metres
3	Where the creature in Terrarium 9 is pointing, and why
4	What Hassan's submersible filmed
5	Whether Pennington's sample from 1957 is still growing
6	What she will do when one of the creatures asks for help



Equipment of the Discipline

Item	Effect
Pennington's Net	A landing net made of copper wire. +2 dice to capture small creatures at the edge of a rift. <i>Rare</i> .
Bait Case	Smells, sounds and light sources in a case. +1 die to lure or distract a creature. <i>Rare</i> .
Portable Terrarium	Keeps a small creature alive for a week, in an atmosphere it likes. <i>Very rare</i> .
Ten-Minute Timer	A stopwatch that vibrates after ten minutes. No game value. Every Astrobiologist carries one.

The Others and Us

About the Biochemists: "We bring what lives. They find out what it dies of. We rarely agree whether that is a good division of labour."

About the Physicists: "They measure the rifts. We measure what comes through."

About the Engineers: "They build the containers. If one leaks, we find out first."

About the Cyberneticists: "They build machines that want to live. We find life that might be machine. Someday we will meet."

Characters of the Discipline

The Animal Keeper. An astrobiologist who has looked after the tunnel with the terrariums since 2012. She talks to the creatures, and she claims that some answer. The Research Directorate sent her a psychologist. He now comes voluntarily every week to listen, and he has started to take notes.

Dr. Tariq Hassan. Head of the Discipline, a former deep-sea researcher who came to O.D.I.N. after his submersible filmed a circle of light on the seabed at a depth of 4,000 metres. He is calm, thorough and refuses to talk about the video. He no longer dives. He no longer goes swimming either.

The Creature in Terrarium 9. A small, translucent animal from a rift in Portugal that has lived in the Institute since 2017. It has not changed during this time. It always turned in the same direction, towards the north. Until recently. The animal keeper says it is now afraid.

DIVE 212, PROTOCOL OF THE RECORDING

4,012 m. 02:14:07 Circle of light on the seabed, estimated diameter 30 m.

02:14:40 A second, smaller circle inside the first.

02:18:07 Seven circles, one inside another.

Hassan: "We are going up."

End of recording. Copy with the Council.

Example Character: Kepler

Astrobiologist, Cadet. Dr. Amara Nwosu, 35, a microbiologist from Lagos, was at a research station in Antarctica when a drilling brought up something that was a million years old and moved. She brought it back. Her story is told at the beginning of this chapter.

Kepler	Astrobiologist, Cadet
Attributes	STR 2, DEX 3, CON 3, INT 5, WIS 4, WIL 2, CHA 1, MAN 2, COM 2
Skills	Biology 5, Perception 5, Xenobiology 3, Survival 3, Academic Knowledge 3, Dodge 3, Technology 2, Chemistry 2, Tracking 2, Athletics 2, Toughness 2, Stress Management 2, Mental Resistance 1
Values	HP 11, Strain Threshold 8, Initiative 3, Defence 2
Abilities	Sample Analysis, Alien Adaptation, Environmental Resonance
Prototype	No. 2310, Detector, Maturity 1: a device that indicates whether something lives within 20 m that is not from here
Drive	Knowledge Seeker. As archetype: The Curious One

Equipment: Basic Scientist equipment, portable laboratory, insulated sample containers, field scanner, breathing apparatus with filter, ten-minute clock. Starting funds €9,000.

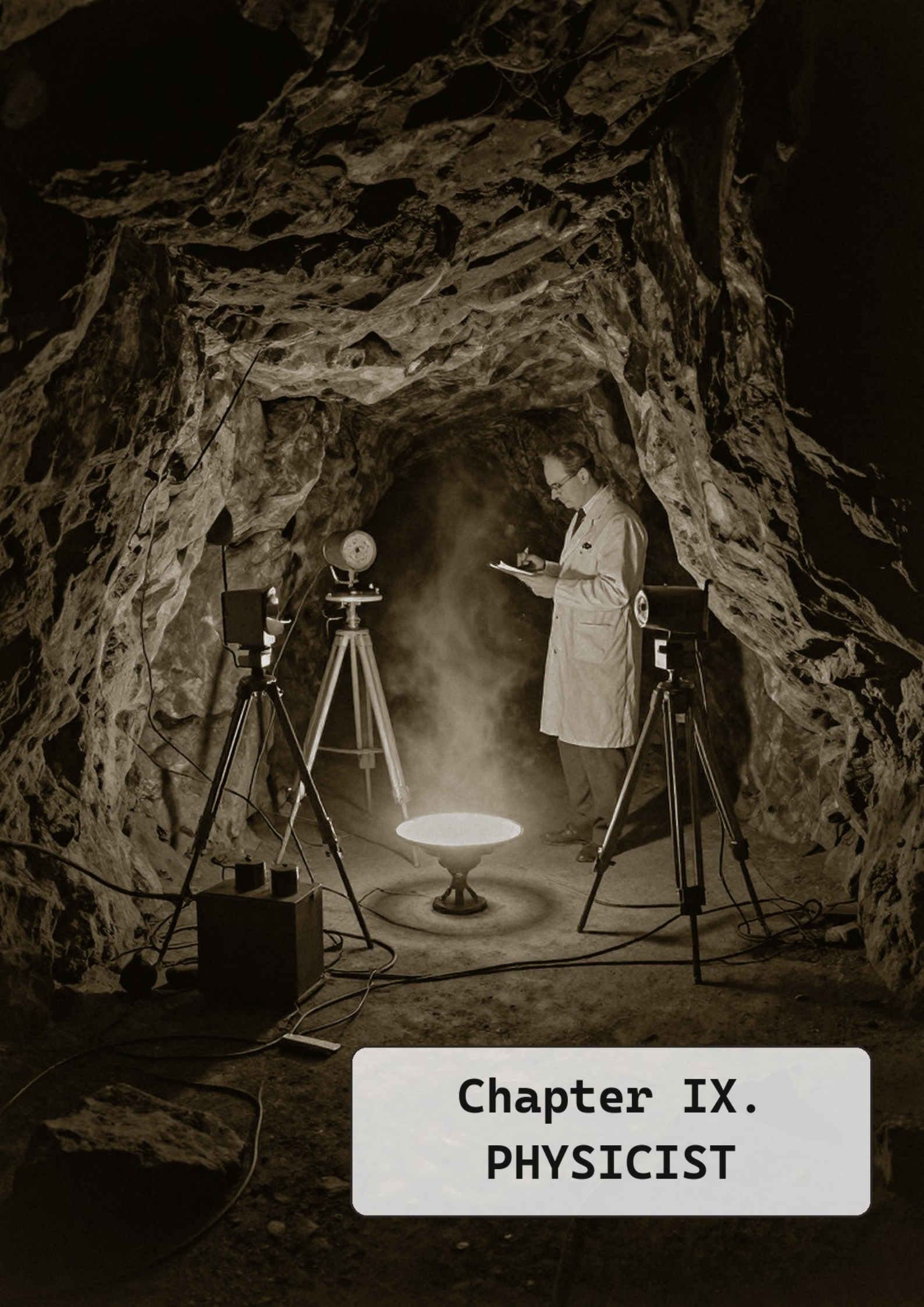
How to play Kepler: You are curious, brave and have a dry sense of humour. You go closer than the others, and you know when you have to turn back, mostly. You wonder whether you did the right thing when you brought back the drill core. And you talk to the creature in Terrarium 9 when nobody is watching.

The Path Through the Experimental Setup

Rank	New Nodes and Increases
Agent (20 XP)	Sample Collector 4, Alien Life 6, Xenobiology to 4 for 8. She saves the remaining 2 XP. Second prototype.
Senior Agent (50 XP)	Field Pharmacy from Biochemist 4, Habitat 8, Measurement Series from Physicist 4. She saves 16 XP. Third prototype.
Veteran (100 XP)	Field Disruption from Physicist 6, Bait 10, Biology to 6 for 12, Survival to 4 for 8, Antidote from Biochemist 6, Stress Management to 3 for 6. Fourth prototype.

The Pillar in the Experimental Setup

Level	Node	Effect
I	Sample Collector	Passive. +2 dice to secure samples, even under fire without penalty.
II	Alien Life	Once per scene, after one minute of observation, the astrobiologist learns a weakness of a supernatural creature.
III	Habitat	Passive. The cell ignores penalties from alien or hostile environments as long as it remains near her.
IV	Bait	Once per scene, she lures a creature towards or away, with a smell, a sound, a sample.
V	The Other Side	Mastery. Once per mission, she takes one step into an open rift and comes back, with an honest answer to one question. Her Contamination is 1 higher until the end of the mission. Afterwards 1 strain.



Chapter IX. PHYSICIST

Physicist

"Magic is only physics we haven't understood yet. I'm working on it."

Physicist, codename Planck

The Nature of the Discipline

Physicists measure the world. Energy, fields, radiation, pressure, temperature, the forces that hold everything together. At O.D.I.N. they measure above all that which should not hold together: rifts, crystals, psionic emissions, the energy a Thaumaturge draws from a stone. They are the Scientists who most readily understand what physically happens when the supernatural touches the world.

Physicists are often the theoreticians of a cell. They explain, they calculate, they predict. And in the field they are the ones with the measuring instruments who are the first to notice that the air smells of ozone.

PHYSICIST AT A GLANCE

Bonuses: +2 INT, +1 DEX. **Skills:** +2 Physics, +1 Engineering, +1 Energy Manipulation.

Equipment: measuring instruments, portable magnetic field generator, energy crystal (power source for prototypes).

Energy Control (passive): +2 dice on Energy Manipulation. Once per scene, an energy weapon in their hand deals +1 damage.

Field Calibration (passive): Tests to calibrate, shield, or disrupt fields and devices are one step easier.

Theoretical Analysis (active, 1x per scene): They ask the game master a specific question about a phenomenon or risk and receive an honest answer. The next test that builds on this answer gains +2 dice.

Full rules: Core Rulebook, Chapter IV.



It was not a large signal. A short pulse, fourteen milliseconds, in an energy range where there should be nothing. Ewa noted it, checked the calibration, checked the electronics. Everything in order. At three twenty-one the second pulse came. At three twenty-five the third.

Every four minutes. Just under four minutes, and each time identical to the millisecond.

She calculated the direction from which the pulses came. Not from space, not from the accelerator. From the earth, from a point about one hundred and twenty kilometres northeast, at a depth of a good kilometre. She opened the map. At that point there was a mountain. Under that mountain lay, she did not know, the Institute.

She reported it in the morning to her group leader. The group leader looked at the data, nodded and said that it was surely an error in the electronics, they would check it. In the afternoon the data had disappeared from the system. In the evening a man in a grey coat stood in front of her apartment door.

"You have measured something," he said.

"I was told it was an error."

"It was not an error." He showed her no identification. He showed her a sheet of paper, a printout, and on it was her signal, the fourteen milliseconds, every four minutes. Only the printout was older. It was dated 14 February 1977, measured by a probe in northern Norway that had since lain in a cellar in Switzerland. The last line bore the time twenty-two ten.

"It stopped in 1977," the man said. "In 2019 it started again, under our feet. Since last night it is so strong that

The Event 2019-44

The detector in the basement of the research centre near Geneva had measured nothing unusual for seven years. That was its task: to measure nothing, very precisely, and to wait until something came after all. Dr. Ewa Kowalik sat in front of the monitors last winter on a Tuesday at three in the morning, because she had the night shift and because she liked night shifts. At night, physics was more honest.

At three seventeen the detector went off.

it is measured in Geneva. We would like you to find out why.”

Ewa Kowalik looked at the sheet. Then she looked at the man. Then she asked the only thing a physicist could ask at that moment.

“Do you have a better detector?”

He smiled. “We have a mountain full of detectors,” he said. “But no one who stays awake at night.”

The Measurers

Physics was the first discipline of the Institute and for a long time the most powerful. Wendland and his colleagues measured everything that was brought to them: crystals, rifts, psions, artefacts. They developed the beryllium insulation and, in the eighties, the kinetic energy shields. The inventor of the shield, Dr. Martin Hofer, was a Physicist. His first prototype stands in the second display case.

In the sixties the Physicists built the first rift detectors, boxes of wood and brass that triggered when the air pressure at a place fell without reason. In the seventies they worked with Paul Mercier on the frequencies that later went into the resonance pistol. And since 2011 they feed Project Map, with thousands of measurements from all Holds that go to Bern every night and are read there by a computer that is never switched off.

Since Nordlicht, there has been one question that the Institute’s Physicists work on more than any other: What happened at 22:10? The probe’s readings are consistent with an event for which there is no reading. Internally, the Physicists call it **the Event**. They have not measured it again since 1977.

Until 2019. Since then it has had a number, and the Physicists who know about it work at night.

Legend: Wendland

Dr. Hans Wendland, the founder of the Institute, was a Physicist, and to this day he is the discipline’s greatest legend. In 1948 he weighed the first crystal, he built the Institute under the mountain, and in 1957 he led the first rift measurement in person. And he asked the question that still occupies the Institute today: Where do the crystals get their energy from? Wendland officially retired in 1979. Where to, nobody knows for certain. His office in the Institute is unchanged to this day, with a copy of the Solberg apothecary’s report on the wall and a note on the desk that reads, in his handwriting: *It is not in the stones. It comes through them.* The clock on the

wall stands at ten past ten. Nobody knows when it stopped, and nobody winds it.

The First Measurement

D6	The first measurement that brought you to O.D.I.N.
1	A pulse from the earth, every four minutes, to the millisecond.
2	A magnetic field that flipped at a spot where a child had just turned over in their sleep.
3	A crystal that weighed less on your scales the longer you watched it.
4	A temperature drop of 30 degrees in a cellar, within a second, without cause.
5	A clock that stopped when you placed a measuring device next to it.
6	A signal from space that in truth came from beneath your feet.

A Day in the Life

Physicists live at the desk and at the measuring device. They calculate, they simulate, they calibrate. Many work at night, because the instruments are quieter at night and because physics, as Ewa Kowalik says, is more honest at night.

In the field they carry more weight than any other Scientist: magnetometers, ozone probes, spectrometers, Geiger counters, laptops with analysis software. They set up the instruments before the others go in, and they are the first to say when something is wrong. The cells have learned to listen to them. A Physicist who says to turn back usually has a reason they cannot yet explain.

Between missions, many Physicists sit in the same room as a Thaumaturge, one with a crystal, the other with a measuring device, and say nothing until one of them notices something. The Collegium calls these sessions exercises. The Physicists call them measurement series. Both sides keep records, and the records agree surprisingly often.

The Induction

Physicists come from particle physics, geophysics, electrical engineering, astronomy. The induction lasts four months and takes place at the Institute, in the measurement laboratories and at the **small rift**, the rift deep in the mountain that opened on the night of Hofer’s death in 1981 and has been kept open ever since so that it can be studied.

The examination is a measurement at the small rift. The candidate receives a measuring device and a question, and has one night to answer it. The question is the same every year: How large is it today? The answer is different every year. Those who pass receive a piece of chalk from the Warden of the Small Rift and write their measurement on the wall of the measuring chamber, next to the measurements of all the Physicists before them. The oldest figures are in Hofer's handwriting.

Play Styles

The following play styles are suggestions, not requirements. The nodes mentioned are at the end of the chapter, the methods in Chapter IV.

Play Style	Description
The Measurer	They recognise anomalies before anyone else sees them. Nodes: Measurement Series, Rift Measurement.
The Disruptor	Fields, energy, shielding. They disrupt electronics, psi and magic. Nodes: Field Disruption, Shielding.
The Theorist	They ask the right questions and get answers no one else receives. Combines well with Theoretical Analysis and with the Hypothesis among the methods.

RULE: THE MEASURING DEVICE FIRST

A Physicist who begins a scene with measuring devices set up notices supernatural events one round earlier than everyone else. Before the first combat round begins, they can act or warn the cell. A warned cell cannot be surprised.

RULE: THE EXPLANATION

Once per mission, a Physicist can explain a supernatural phenomenon they have measured in physical terms. The explanation does not have to be complete. Anyone who hears it gains +1 die on the next horror test connected with this phenomenon. Understanding helps.

The Price

Physicists pay with their worldview. They joined because they believed that everything can be measured and understood. At O.D.I.N. they measure things that obey no theory, and every day they understand a little more and realise how little it is. Some Physicists lose their faith in physics over this. Some find a new one. Wendland is

said to have had both in the end. A custom also originates from him that many hold to: once a year, every Physicist writes down what they do not understand and puts the note in a drawer. The drawers in the Institute are full.

OPTIONAL RULE: WORLDVIEW

If a Physicist experiences a phenomenon that cannot be measured with any of their devices, they make a horror test against Uncanny (1), even if the others do not. If it succeeds with margin, they write the question in their lab book: once in the campaign, the game master answers it honestly.

D6 What the measurements have cost you

1	You measure the temperature of every room you enter.
2	You no longer sleep at night, because at night physics is more honest.
3	Your watch loses one second every week, and you do not know why.
4	You have stopped believing in coincidences and started noting them down.
5	You have written a letter to Wendland. It lies in your drawer.
6	You sometimes hear a ticking, every four minutes. No one else hears it.

In Play

- **You explain what others only experience.** You set up the measuring devices before it starts and warn the cell when something is wrong.
- **Ask about energy.** Where does it come from, where does it go? Your answers help the cell survive the inexplicable.
- **The question for your character:** What would you do if a measurement proved that there is something watching?

EXAMPLE: PLANCK IN THE STAIRWELL

Planck has set up an ozone probe and magnetometer in the stairwell of an old building before the cell goes in (The measuring device first). The probe triggers. Planck warns the others before the first round begins, and the cell is not surprised.

Then she uses Theoretical Analysis and asks: "Does the being hang on the house's power grid?" The answer is yes. Planck wants to disrupt the main fuse so that the grid flickers: INT 5 and Energy Manipulation 3, plus +2 dice for Energy Control and +2 for the answer, but together at most +3. Because of Field Calibration, the test is not Hard (3), but Doable (2). She rolls 5 successes. The light flickers, and the being flickers with it.

Playing with Other Classes

The Physicist is the best friend of every **Thaumaturge**, even if both deny it: he measures what the other works, and together they understand more than either alone. With an **Echo-Operative** among the Soldiers, he shares the love of frequencies. A **Precognitive** among the Psions can tell him when a rift opens, and he can tell the Precognitive why. A **Chronomancer** from the Collegium hears the beat beneath all things, and the Physicist can measure it. When both agree, the cell is warned. And an **Investigator** needs his measurements to prove that something happened.

From the Files

INSTITUTE, MEASUREMENT PROTOCOL

Event 2019-44. Pulses of 14 ms, interval 240 s, origin about 800 m below the Institute.

Comparison with the Nordlicht probe, 14.02.1977, from 21:06: match 99.8%. From 22:10 no more pulses.

Note: The interval has been shortening by 0.1 s per year since 2019. Since January by 0.1 s per week.

INSTITUTE, SMALL RIFT, DAILY MEASUREMENT

Diameter today: 31 cm. Yesterday: 29 cm.

Note from the guard: It is growing. Faster than ever since 1981.

WENDLAND'S OFFICE, ACCESS LOG

Access: Dr. E. Kowalik, 03:12 to 05:40.

Removed: nothing.

Note from the guard: She stood in front of the desk the whole time and made a mark every four minutes.



Questions for Your Physicist

D6 What your character does not yet know

- 1 What pulses 800 metres below the Institute
- 2 Why the 2019 event started again
- 3 What Wendland meant by "She comes through them"
- 4 Why the small rift is growing
- 5 Where the circles on Project Map point
- 6 What happens when the interval of the pulses reaches zero

Equipment of the Discipline

Item Effect

- | | |
|------------------------------|--|
| Portable Magnetometer | +2 dice to locate rifts, crystals and psionic activity within 50 m. <i>Rare.</i> |
| Field Generator | Creates a magnetic field of 3 m. Electronic devices within it fail, including your own. <i>Rare.</i> |

Item	Effect
Calibration Stone	An exhausted crystal shard in a brass setting. Measuring devices calibrated on it before a scene give +1 die in that scene. <i>Very rare.</i>
Wendland's Slide Rule	An old slide rule with handwritten markings. +1 die on Physics for calculations concerning rifts. <i>Very rare.</i>

The Others and Us

About the Biochemists: "They examine what lives. We examine what drives it."

About the Astrobiologists: "They go to the edge. We tell them in advance how wide it is."

About the Engineers: "We invent it, they build it. Mostly it then does not work, but differently than we thought."

About the Cyberneticists: "They connect people with machines. We ask ourselves what happens to the energy in the process. They do not ask themselves that."

Figures of the Discipline

Dr. Ewa Kowalik. Planck, the example character of this chapter. She works at night, alone, on Event 2019-44, and she is the only one in the Institute who may enter Wendland's office. She has read the note on the desk. She does not understand it yet. She has given the pulses a name that she reveals to no one.

The Keeper of the Small Rift. An old Physicist who has tended the rift in the mountain since 1981. He measures it every morning. He has never entered it. He says the rift measures him too. He knew Hofer and tells that Hofer constantly set the clocks in his last week.

Dr. Julian Reyes. Head of Project Map, a young, brilliant data scientist who first saw the circles on the map. He is convinced that they have a centre. He has almost found it. For some weeks he has slept badly and calculates at night, and sometimes he gets up in the canteen and leaves, in the middle of a sentence, as if he had heard something.

PROJECT MAP, NOTE REYES TO RESEARCH MANAGEMENT

The circles have a common centre. Deviation under 3 km.

For the final calculation I need the exact coordinates of the Institute. My request was rejected. I ask for a justification.

Example Character: Planck

Physicist, Cadet. Dr. Ewa Kowalik, 38, particle physicist from Kraków, measured in a detector near Geneva a pulse that came from a mountain under which she suspected nothing. Her story is told at the beginning of this chapter.

Planck	Physicist, Cadet
Attributes	STR 1, DEX 3, CON 2, INT 5, WIS 4, WIL 3, CHA 2, MAN 2, COM 2
Skills	Physics 5, Academic Knowledge 4, Perception 4, Energy Manipulation 3, Engineering 3, Technology 3, Cryptography 3, Dodge 3, Energy Weapons 2, Toughness 2, Stress Management 2, Mental Resistance 1
Values	HP 10, Strain Threshold 9, Initiative 3, Defence 2
Abilities	Energy Control, Field Calibration, Theoretical Analysis
Prototype	No. 2315, Detector, Maturity 1: a measuring device that receives the pulses of the Event even outside the Institute
Drive	Seeker. As archetype: The Obsessed

Equipment: Scientist basic equipment, measuring instruments, portable magnetic field generator, energy crystal, ozone probe, a thermos flask of coffee. Starting funds €9,000.

How to play Planck: You are brilliant, impatient and most awake at night. You measure everything, and you believe nothing until you have measured it. The pulses will not let you go, and you are certain that they mean something that can be deciphered.

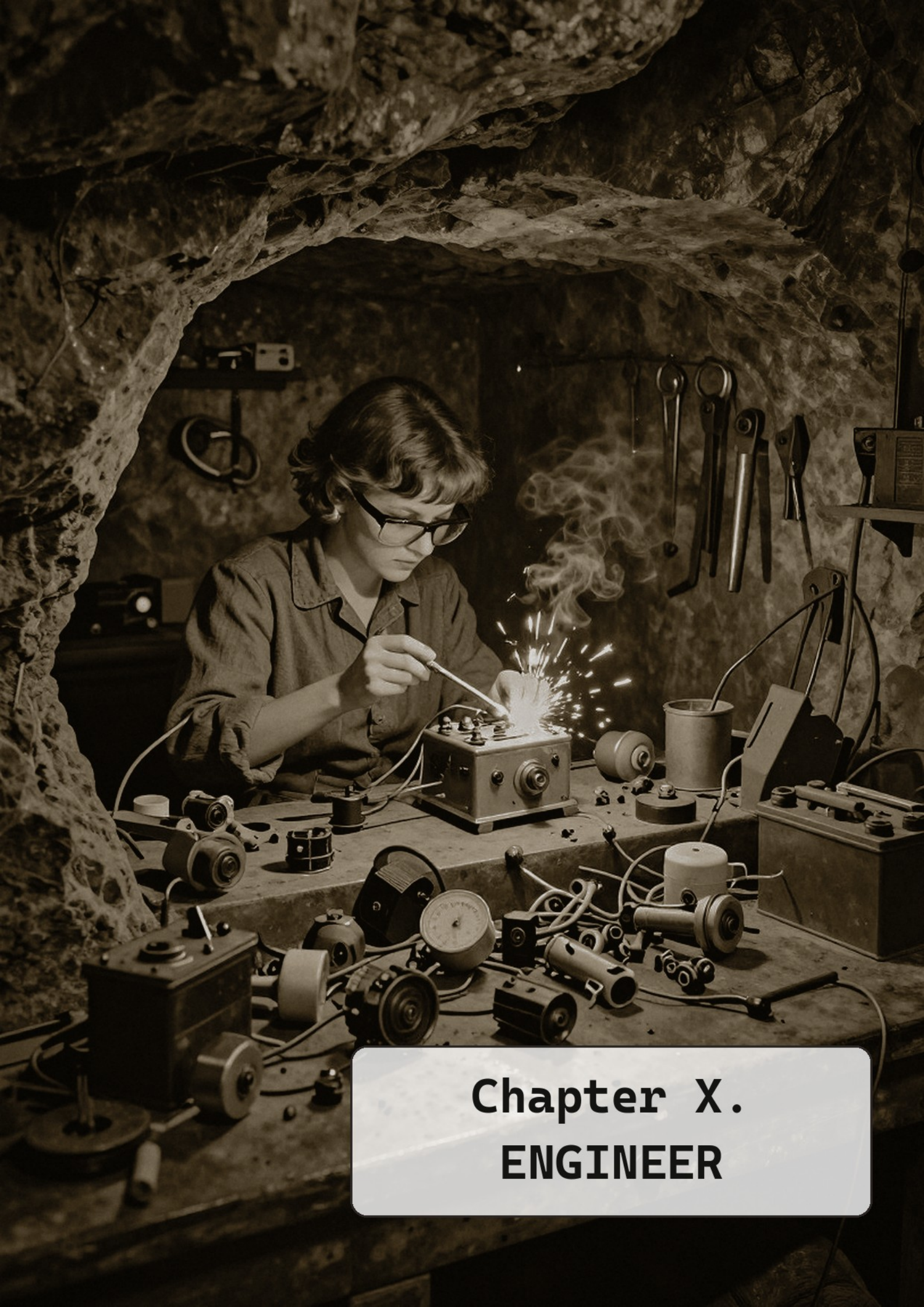
The Path Through the Experimental Setup

Rank	New Nodes and Increases
Agent (20 XP)	Measurement Series 4, Field Disruption 6, Sample Collector from Astrobiologist 4, Workbench from Engineer 4. She saves the remaining 2 XP. Second prototype.
Senior Agent (50 XP)	Rift Measurement 8, Conversion from Engineer 6, Physics to 6 for 12. She saves 6 XP. Third prototype.
Veteran (100 XP)	Shielding 10, Cryptography to 4 for 8, Energy Manipulation to 4 for 8, Alien Life from Astrobiologist 6, Stress Management to 3 for 6, Perception to 4 for 8. Fourth prototype.

The Pillar in the Experimental Setup

Level	Node	Effect
I	Measurement Series	Passive. +2 dice on Perception for anomalies when the Physicist uses measuring devices.
II	Field Disruption	Once per scene, opponents with energy weapons or electronics within 10 m roll with -2 dice for three rounds.

Level	Node	Effect
III	Rift Measurement	Passive. They recognise one round in advance that a rift opens within 100 m and how large it will be.
IV	Shielding	Once per scene, all psionic and magical attacks on targets within 3 m of them roll with -2 dice for three rounds.
V	Resonance Catastrophe	Mastery. Once per mission, they close a small rift or break a supernatural barrier. Afterwards 1 strain.



Chapter X. ENGINEER

Engineer

"Give me duct tape, a battery and five minutes."

Engineer, codename Schraube

The Nature of the Discipline

Engineers build. They repair what is broken, improve what works and improvise what does not exist. At O.D.I.N. they are the Scientists who are needed most in the field, because in the field something always breaks. An Engineer in the cell is the guarantee that the vehicle starts, the door opens and the shield holds.

Engineers are the most practical people in the Science Branch. They ask fewer questions than Physicists and more than Soldiers. Their favourite question is: What do I have here, and what can I build with it?

ENGINEER AT A GLANCE

Bonuses: +2 DEX, +1 INT. **Skills:** +2 Engineering, +1 Technology, +1 Craft.

Equipment: precision tool set, repair kit, modular electronic components.

Quick Repair (passive): +2 dice on repairs, which also take only half the time.

System Adaptation (active, 1x per scene): They modify a device or a weapon. For the rest of the scene it gives its user +1 die.

Improvisation (passive): If suitable tools or material are missing, they suffer no penalty. When improvising solutions, they gain +2 dice.

Full rules: Core Rulebook, Chapter IV.

Five Minutes

The lift was stuck between the third and fourth basement levels, and on the fourth basement level something was just opening.

Schraube lay on the roof of the car, a torch between her teeth, and looked down the shaft. Below her, through the open hatch, she saw Brandt, Viola and two technicians from the Hold, whom they had just pulled out of the machine room before the light went out there. And below that, through the gap between car and shaft wall, she saw a bluish glow creeping up from below, together with the smell of ozone.



"How long?" Brandt called from below.

"Five minutes," said Schraube, without taking the torch out of her mouth.

The problem was simple and difficult at the same time. The lift had triggered an emergency brake when the power failed, and the emergency brake could only be released again with power. The emergency power was on the fourth basement level, where something was just coming through the wall. Without power no brake, without brake no lift, without lift no way up except the ladder in the shaft, and the ladder was not an option for five people with equipment and an injured technician.

Schraube had a battery. The one from her prototype, a drone that was supposed to listen through walls and had been doing exactly that for three weeks. The battery was enough for four hours of drone or for about twenty seconds of brake magnet, if you short-circuited it.

She needed two cables, a clamp and the courage to dismantle a drone she had spent three months building.

She dismantled it. It took a minute. She found the wire to the brake magnet, stripped it, clamped the battery on and held the cable ends apart until she was done. Below, the glow grew brighter. Viola said something Schraube did not understand. Brandt reloaded.

"When I say now," Schraube called down, "someone pulls the red lever next to the door. Not before. Not after."

"Which red lever?" asked one of the technicians.

"The only red one."

She held the cables together. The battery became hot, immediately, too hot, and she smelled scorched plastic. The brake clicked.

“Now!”

Someone pulled the lever. The car jolted, dropped half a metre, caught itself, and then the emergency drive engaged, slowly, grinding, upwards. Schraube held the cables tight until the battery in her hand stopped glowing and only smoked. Below her, the glow fell back down the shaft.

On the ground floor the door opened. They climbed out, one after another, and Schraube last, with a burn blister on the palm of her hand and the remains of her drone under her arm.

“Five minutes?” asked Brandt.

“Four,” said Schraube. “I needed one to make up my mind.”

She rebuilt the drone afterwards, from scratch, on a new page in the old lab book. Under the number there is a line she wrote herself: *Dismantled once to save five lives. It was worth it.*

The Makers

Engineers had existed at the Institute from the beginning, but for a long time they had no name of their own. Walter Gysin, the electrical engineer among the first Four, built Wendland’s measuring instruments, laid the cables through the mountain and maintained the cooling units, and after him came technicians who did the same. Only in the seventies, when Hofer developed the shield, did they get their own department.

Since then, the Engineers have been the link between the Institute and the other branches. They build the helmets for the Choir, the shields for the Hammer, the devices for the Shadows, the crystal mounts for the Collegium. Every branch at O.D.I.N. has a favourite Engineer, and every Engineer has a branch they cannot stand, usually because of a device that came back and no longer looked the way it did before.

Since 2011, the Engineers have mainly built one thing: more. More detectors, more shields, more measuring instruments for Project Map. The workshops run around the clock, and the Engineers have got into the habit of sleeping in them.

In every workshop of the branch hangs a photo of Walter Gysin, with a soldering iron in his hand and a cigarette in the corner of his mouth, which he was never

allowed to light in the mountain. Whoever takes over a workshop receives the photo from their predecessor, and whoever sets up a new one collects it from the Institute.

Since 2011, there has also been a second workshop for shields, whose location not even Jonas Ahrens knows, who builds the shields in Stuttgart. The Engineers of the Institute only know that it exists and that its shields charge better than their own. Whoever works there does not come from the Institute and does not speak with the workshop master.

Legend: Hofer

Dr. Martin Hofer was actually a Physicist, but at the Institute his story is told among the Engineers. In the seventies, he built the first prototype of a kinetic shield, in a workshop under the mountain, from parts he had borrowed from three branches, and a crystal shard that the Collegium gave him only reluctantly. The shield worked. Hofer did not live to see its series maturity; his other prototype stands in the second display case. But the Engineers tell every new colleague that the shield that every Techno-Stormtrooper wears today comes from a workshop where a man built alone at night because he wanted to see if it was possible.

The First Device

D6	The first device you built or repaired for O.D.I.N.
1	A radio that kept transmitting even though the battery was missing. You wanted to know why.
2	A shield that no longer charged after a mission. Inside the casing lay a grey shard.
3	A transporter that stopped in the middle of a bridge one night, and nothing was broken.
4	A psionic helmet that hummed when nobody was wearing it.
5	A cool box from which someone knocked from the inside.
6	Your own invention, built in the cellar before you knew O.D.I.N. They took it from you and you along with it.

A Day in the Life

Engineers start the day in the workshop, with coffee and a list. On the list is what needs to be repaired, and it is always longer than the day. Shields, helmets, radios, vehicles, measuring instruments, cooling units. In

between, people from all branches come by and ask whether one could quickly build something.

On a mission, Engineers carry their tools on their body and their ideas in their head. They open doors, repair transporters, build barricades from rubble and traps from scrap. They are the Scientists who improvise the most, and those who hesitate the least while doing so.

In the evening, they continue building. On their own prototypes, on things nobody has ordered. Many Engineers have a workbench in their flat. Most no longer have room for a sofa. At the weekend, they repair things that have nothing to do with O.D.I.N.: a neighbour's bicycle, an aunt's washing machine, an old radio from the flea market. They say that keeps the hands honest.

The Induction

Engineers come from all directions: mechanical engineering, electrical engineering, mechatronics, sometimes directly from a workshop without a degree. The Institute does not ask for qualifications, but for results. The induction lasts four months in the large workshop under the mountain.

The examination is called **the scrap heap**. The candidate receives a pile of parts, one day of time, and a task, for example: Build something that opens a door that is locked from the inside without damaging it. The parts never quite fit. That is the point of the examination. Whoever passes receives a spanner with their codename from the workshop master. Schraube needed nine hours for her door and the drum of a washing machine, and her solution stands today in the large workshop, as an example that there is always a way.

Play Styles

The following play styles are suggestions, not mandatory. The nodes mentioned are at the end of the chapter, the methods in Chapter IV.

Play style	Description
The Mechanic	They repair everything, everywhere, quickly. Nodes: Workbench, Conversion.
The Drone Builder	They send machines ahead where people should not go. Nodes: Drone, plus Interface from the Cyberneticist.
The Improviser	Bridges, barricades, traps from what is there. Nodes: Emergency Construction, The Machine.

RULE: STRIPPING FOR PARTS

An Engineer can dismantle a prototype or a device to repair another or to enable an improvisation that would otherwise be impossible. The dismantled device is broken afterwards. A dismantled prototype of their own loses 1 maturity when rebuilt.

RULE: THE FAVOURITE ENGINEER

Every Engineer may choose another branch for which they are the preferred contact. Members of this branch in their cell receive +1 die on tests with equipment they have maintained.

EXAMPLE: SCHRAUBE ON THE MOUNTAIN PASS

The cell's transporter breaks down at night on a mountain pass. The ignition coil has burnt out, and something is moving in the woods behind the bend. There is no spare coil.

Schraube builds one from the wire of a torch and a piece of copper pipe. Missing material costs her no penalty because of Improvisation. Improvisation and Rapid Repair together give +4 dice, but only +3 count. She rolls INT 4 and Technology 4 with 3 bonus dice against Hard (3) and has 5 successes. Instead of twenty minutes, she needs ten.

The engine starts. With System Tuning she gets a little more out of it: Moth at the wheel receives +1 die on Driving for the scene. In the rear-view mirror, nobody sees what comes out of the woods. Everyone hears it.

The Price

Engineers pay with their hands and with their time. They have burn scars, cuts, bruises, and most have a finger that is no longer quite straight. And they never finish work, because something is always broken. Many Engineers only realise after years that they spend their lives repairing other people's things and never get around to building their own.

OPTIONAL RULE: THE LIST

Before every mission, an Engineer may inspect the cell's equipment. Then each cell member receives +1 die once during this mission on a test with an item they have maintained. In return, the Engineer recovers 1 less strain after the mission, because they again did not work on their own prototype.

D6 What the workshop cost you

- | | |
|---|---|
| 1 | You are missing the tip of a finger. You still know which device it was. |
| 2 | You cannot walk past a broken device, not even in other people's homes. |
| 3 | In your flat there is a workbench, but no sofa. |
| 4 | You missed three birthday dinners because a shield would not charge. |
| 5 | You can tell from an engine whether it is lying. |
| 6 | You once repaired something that was not broken. Since then it works better than it should. |

In Play

- **You keep the cell's technology running.** Vehicles, shields, radio, doors. And you build what is missing from scrap.
- **Ask what is there.** Your best tool is the look at what is lying around in the room.
- **The question for your character:** What would you build if they let you?

Playing with Other Classes

The Engineer is the best friend of every **Techno-Stormtrooper** whose shield they maintain, and of every **Saboteur** among the Agents, with whom they talk shop about weak points. A **Telekinetic** among the Psions can move parts they cannot reach. A **Thaumaturgist** from the Collegium needs them for crystal settings. A **Nanotech Veteran** would rather have them adjust the harness than have a Cyberneticist examine their blood. And everyone in the cell needs them when the transporter will not start.

From the Files

WORKSHOP LEDGER, INSTITUTE

Kinetic shield, serial number 0003, from the archive. One of the first series shields after Hofer's design, 1987.

On opening: crystal shard in the housing, clear, not recorded.

Note from the workshop master: housing closed again. Do not forward.

MISSION REPORT, EXCERPT

Incident RA-2255, Hold-5. Failure of the emergency power during a rift in the fourth basement level.

Lift rescued by an Engineer with an improvised power source from a prototype. 5 people evacuated.

Addendum: prototype destroyed. Engineer requests rebuild. Approved.

WORKSHOP HOLD-5, ORDER BOOK

Order 1,112. Neuro-Helm, Psionic Core. Fault description: hums when nobody wears it.

Finding: no fault detectable. Hums every four minutes.

Return to the Choir without findings.



Questions for Your Engineer

D6	What your character does not yet know
1	Why an unrecorded crystal sits in one of the first series shields
2	What the workshop master sees when they open the shields alone
3	What came out of the wall in the fourth basement level
4	What their drone heard in the walls of the Hold before they dismantled it
5	Whether they should still install the sample from Graz after all
6	What they would build if they were allowed

Equipment of the Discipline

Item	Effect
Institute Tool Belt	Everything needed for a repair in the field. No penalty for missing tools. <i>Common</i> .
Spare Parts Case	Parts that fit nothing and everything. Once per mission a repair for which a part is missing succeeds without a test. <i>Common</i> .
Adhesive Tape with Crystal Dust	Sticks even to things that are not from here. Once per mission. <i>Rare</i> .
Hofer's Spanner	An old spanner from Hofer's workshop. +1 die on repairs to shields and energy devices. <i>Very rare</i> .

The Others and Us

About the Biochemists: "They need cool boxes that never fail. We build them some. They fail anyway."

About the Astrobiologists: "They bring things that test our containers from the inside."

About the Physicists: "They have the idea. We have the tool. In the end our name is never on the patent."

About the Cyberneticists: "We build machines. They build machines into people. We don't talk about Asklepios."

Characters of the Discipline

The Foreman under the Mountain. An old Engineer who has run the main workshop since 1985. He worked with Hofer's plans when they still lay on the table in Hofer's handwriting. He personally repairs every shield that comes back to the Institute, and he always opens the

casing alone. What he finds inside, he writes in a workshop ledger that never leaves the workshop.

Jonas Ahrens. The Engineer who has built kinetic shields in Stuttgart for twenty years. He says there is no crystal shard left inside. He says it too quickly. Since 2011 he has received shields for maintenance that he did not build, and no one tells him where they come from.

Leni Hartmann. Schraube, the example character of this chapter. She dismantled her first drone to save a lift, and built a new one. In the cold store lies a sample from Graz that she has not yet installed.

NOTE ON THE DOOR OF THE MAIN WORKSHOP

Whoever brings back a shield, puts it on the bench and leaves.

I open the casings myself. No exceptions. No questions.

The Foreman

Example Character: Schraube

Engineer, Cadet. Leni Hartmann, 31, was a mechanic in a rally team until a vehicle continued driving after an accident in the Moroccan desert, without driver and without engine. She wanted to know how. The Institute wanted that too.

Schraube	Engineer, Cadet
Attributes	STR 2, DEX 5, CON 3, INT 4, WIS 2, WIL 2, CHA 2, MAN 1, COM 3
Skills	Engineering 5, Technology 4, Perception 4, Dodge 4, Craft 3, Driving 3, Academic Knowledge 2, Security Systems 2, Firearms 2, Toughness 2, Athletics 2, Stress Management 1, Mental Resistance 1
Values	HP 11, Strain Threshold 9, Initiative 5, Defence 3
Abilities	Quick Repair, System Adaptation, Improvisation
Prototype	No. 2298, Detector, Maturity 1: a drone that hears in walls, newly built after the lift
Drive	Knowledge seeker. As archetype: The Inventor

Equipment: Scientist basic equipment, precision tool set, repair kit, modular electronic components, Institute tool belt, adhesive tape. Starting funds €6,000.

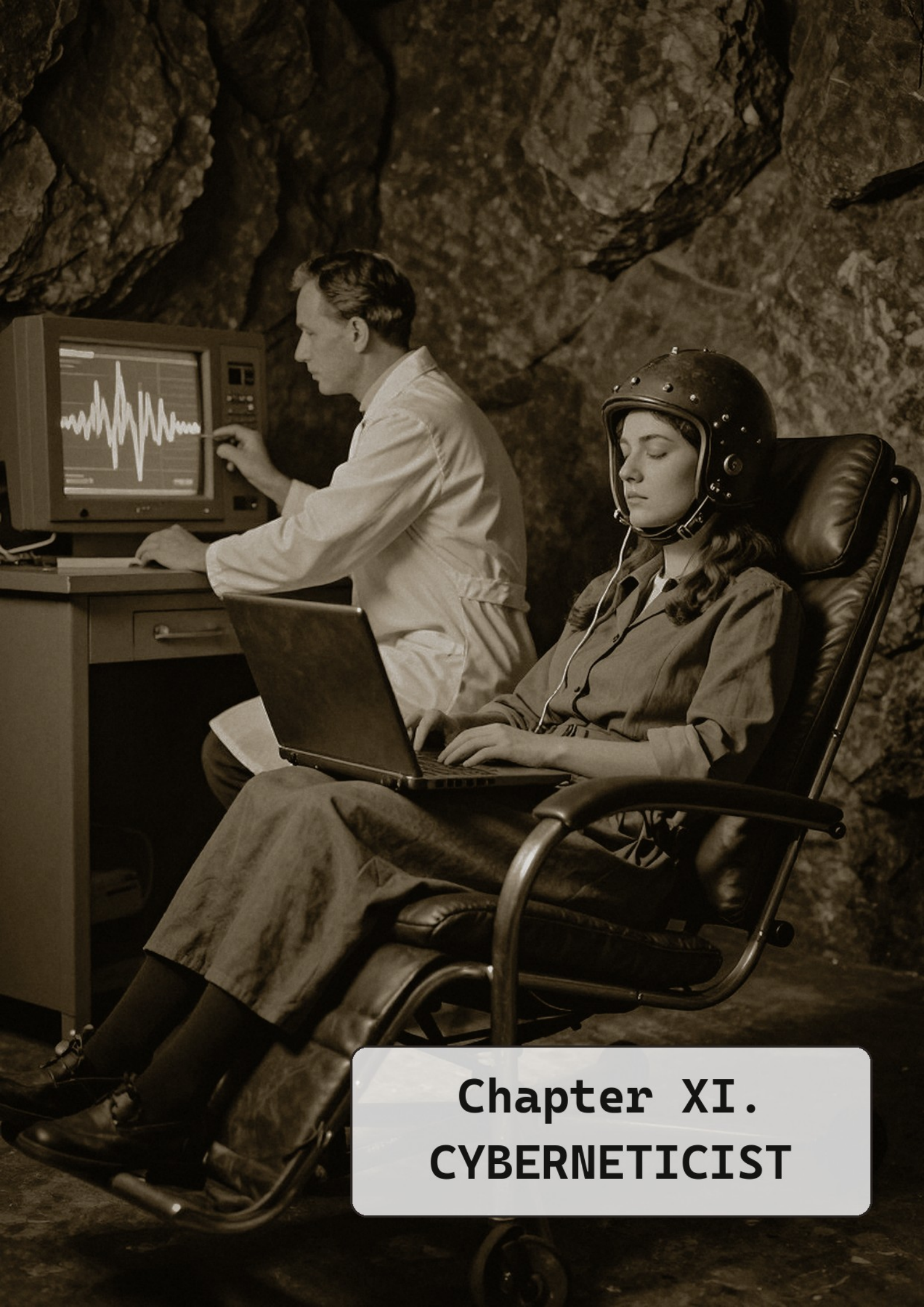
How to play Schraube: You are practical, quick and a little disrespectful. You solve problems with what is there. You dismantle your own inventions when necessary, and rebuild them afterwards. You have respect for the second display case, and you don't admit it. If someone in the cell says something won't work, you ask what they would need for it.

The Path Through the Experimental Setup

Rank	New Nodes and Increases
Agent (20 XP)	Workbench 4, Conversion 6, Measurement Series from Physicist 4, Field Surgeon from Cyberneticist 4. She saves the remaining 2 XP. Second prototype.
Senior Agent (50 XP)	Drone 8, Interface from Cyberneticist 6, Technology to 5 for 10, Craft to 4 for 8. Third prototype.
Veteran (100 XP)	Emergency Construction 10, Field Disruption from Physicist 6, Engineering to 6 for 12, Driving to 4 for 8, Stress Management to 2 for 4, Perception to 4 for 8. Fourth prototype.

The Pillar in the Experimental Setup

Level	Node	Effect
I	Workbench	Passive. Repairs in the field take only a quarter of the time.
II	Conversion	Passive. System Adaptation gives +2 dice instead of +1. Anyone who does not have System Adaptation can use it with this node once per scene with +1 die.
III	Drone	She builds a drone that has one action per round: reconnoitre, film, send a signal, carry a small load. HP 3, Defence 3.
IV	Emergency Construction	Once per mission she builds in ten minutes a bridge, barricade, trap or a makeshift repair on a vehicle that lasts until the end of the mission.
V	The Machine	Mastery. Once per campaign she builds a device that does something impossible, in consultation with the game master. Afterwards 1 strain.



Chapter XI. CYBERNETICIST

Cyberneticist

"The flesh is weak. Fortunately, it can be upgraded."

Cyberneticist, codename Relais

The Nature of the Discipline

Cyberneticists connect people and machines. They install implants, build prostheses, develop interfaces between brain and device, and they hack systems with an ease that other Scientists find uncanny. At O.D.I.N. they are the discipline that has grown fastest, and the one that is trusted least.

That is because of Asklepios. The Cyberneticists worked on that programme, and every nanotech veteran who passes through a Hold reminds them of it. Most of today's Cyberneticists were not there in 2004. They carry the guilt anyway, just as the Echo operatives carry the guilt of the Carpathians.

CYBERNETICIST AT A GLANCE

Bonuses: +2 INT, +1 DEX. **Skills:** +2

Cybernetics, +1 Hacking, +1 Robotics.

Equipment: diagnostic and interface device, cyber-toolkit, a prototype implant (reflex enhancer: +1 initiative).

System Integration (passive): +2 dice on Cybernetics when installing, repairing, or adapting implants.

Neural Coupling (active, 1x per scene): They connect directly to a device. For the scene, they gain +2 dice on Hacking and Robotics with this device.

Adaptive Enhancement (active, 1x per scene): An ally with an implant gains +1 die on all physical tests for the scene.

Full rules: Core Rulebook, Chapter IV.

Number Twelve

Arvid Lund had not forgotten the bed of Number Twelve for more than twenty years, and now the man who had lain in it stood before his desk.

He had aged, but not the way people age. His file listed a year of birth that did not match his face. Grzegorz Wolski, codename Stahl, looked like a man in his early forties, with grey temples and skin that showed not a single scar, although Arvid knew the file and knew how many there should have been. His eyes were calm. Too calm.

"You were there back then," said Stahl. Not a question.

"I was there." Arvid had placed the injection ports in 2004, forty of them, in forty volunteers. He had been twenty-seven, just finished his doctorate, the youngest on Dr. Albrecht's team. He had believed in healing.

"I have a question," said Stahl. "And Dr. Albrecht won't answer it."

Arvid waited.

"When I'm near a crystal, the nanites hum. I hear it. Not with my ears. With my blood." Stahl spoke calmly, as if talking about the weather. "And sometimes, when it's very quiet, they hum a song. I don't know the song. But my daughter in Kraków sang it to me on the phone last month. She said she dreamed it."

Arvid Lund sat very still. After Asklepios he had left the programme, switched to cybernetics, and since then built implants that could be removed again. He had thought he had gained distance. He had been wrong.

"I don't know where the nanites come from," he said, and it was the truth. "I placed the ports. The nanites came in sealed ampoules from a laboratory I had no access to. The ampoules bore only a number."

"Which number?"

Arvid had never forgotten it. In the first years he had seen it before him at night, on each of the forty ampoules. "S-1," he said.

Stahl nodded slowly. It was impossible to tell whether that meant anything to him. He stood up, very straight, very calm.

"Thank you," he said. "You are the first to give me an answer."

"It's not an answer. It's a number."

"With us," said Stahl, "it's often the same thing."



After he had gone, Arvid remained sitting in his office for a long time. Then he opened a drawer, took out a small diagnostic device he had built years ago and never used, and switched it on. It was designed to measure nanites. It displayed readings, and the readings did not come from Stahl, who was long gone.

They came from himself.

The Controversial Ones

Cybernetics was part of the Engineers until the nineties. It built helmets for the Choir, prostheses for wounded Soldiers, devices that measure brainwaves. Only with digitalisation did it become its own discipline, and with Asklepios the most controversial one.

After 2004, many Cyberneticists left the Institute or changed discipline. Those who remained gave themselves their own ethical rule before there was an ethics committee: every implant must be removable again. This rule applies to this day, and it is the reason why Cyberneticists are now respected again by the other disciplines. Not loved. Respected.

The Cyberneticists also built the first neural amplifiers, narrow metal bands that a Psion wears behind the ear and that turn a thought into a jolt. They worked with the Psions, not on them, and in the Choir there are Psions who trust a Cyberneticist more than their Observer.

Since 2011, Cyberneticists have mainly worked on two things: interfaces that help Psions control their gift, and systems for Project Map that bring together data from a thousand sources. Some are working on a third project

they are not allowed to talk about. It is said to have to do with the nanites.

Legend: The Cap

The first interface between human and machine at O.D.I.N. was not a machine. It was a leather cap with sewn-in plates of Alloy S, which Dr. Ilse Marek developed with the Institute in 1949 to dampen the hearing of her Psions. The Cyberneticists regard it as their ancestor. In the discipline's laboratory hangs a photo of Marek, and beneath it is a sentence she wrote in 1950 in a letter to Wendland: *We are not building them cages. We are building them doors they can close themselves.* The Cyberneticists say that is their principle. The Nanotech Veterans say it is a nice sentence. The cap itself now lies in the Room of Artefacts next to the entrance hall, with Marek's initials in the leather, and every Cyberneticist may look at it once, on the day of their admission.

The First Connection

D6	The first time human and machine came too close
1	A patient with a hearing implant who suddenly heard radio conversations that no one was having.
2	A robot arm in a laboratory that repeated a movement at night, always the same, like a gesture.
3	A Psion with a helmet whose helmet whispered something to you when you repaired it.
4	A computer that wrote a file no one had opened, with a song in it.
5	A Nanotech Veteran who told you their nanites would recognise you.
6	Your own implant that did something it was not built for.

A Day in the Life

Cyberneticists shuttle between the infirmary and the data centre. In the mornings they insert implants, maintain prostheses, check the Choir's helmets. In the afternoons they sit in front of screens, write code, connect systems, hack what can be hacked, mostly on behalf of other branches.

In the field they are the Scientists with the most cables. They connect to door controls, cameras, lifts, drones, and they take over whatever can be taken over. Many wear an implant themselves, usually a reflex amplifier or an interface in the forearm. They inserted it themselves because they did not want to ask anyone to test it first.

In the evenings they keep a record of every implant they have inserted, with the name of the wearer, the date and the day it is due to come out again. Many Cyberneticists know this list by heart. Some dream about it.

The Induction

Cyberneticists come from medical technology, computer science, neuroscience, sometimes from surgery. The induction lasts four months, half in the infirmary, half in the data centre. And it begins with a visit to a Nanotech Veteran. The Veteran tells what they want. The new Cyberneticist listens. That is mandatory. Many Cyberneticists later say this visit was the most important thing they learned at the Institute, and some say it is the reason they stayed.

The examination consists of an implant that the candidate designs, builds, inserts into a volunteer and removes again after a week. If it cannot be removed without a trace, they have not passed.

Play Styles

The following play styles are suggestions, not mandatory. The nodes mentioned are at the end of the chapter, the methods in Chapter IV.

Play Style	Description
The Surgeon	Implants, prostheses, improvements for the cell. Nodes: Field Surgeon, Reflex Coupling.
The Hacker	Systems, networks, machines. They take over what is wired. Nodes: Interface, Ghost Hand, Total Integration.
The Guilty One	They work on making amends: on implants that help Nanotech Veterans, on interfaces that protect Psions. Combines well with Field Pharmacy from the Bio-chemist.

RULE: REMOVABILITY

Every implant a Cyberneticist inserts can be removed again: one hour and a test of INT + Cybernetics against Doable (2). An implant that cannot be removed they may not insert. If they do it anyway, they roll a horror test against Disturbing (2) after the mission.

RULE: IMPLANTS AS PROTOTYPES

A prototype of the implant type can be implanted in an ally. It then counts as their equipment, but continues to mature as the Cyberneticist's prototype. If it contains a test, the Cyberneticist's Contamination increases, not the wearer's.

EXAMPLE: RELAIS IN THE COMPUTER CENTRE

Relais and Stahl must get into the computer centre of a clinic, where a server stands that stores a song at night. The security door has an electronic lock, Hard (3).

Relais uses Neural Coupling on the door control: For the scene, he gains +2 dice on Hacking and Robotics on this device. INT 5, Hacking 4 and 2 bonus dice result in 5 successes. The door opens, and the camera in the corridor shows only the empty hallway for the next hour.

Inside, a server rack has toppled over and pinned a technician. Relais uses Adaptive Enhancement on Stahl, whose injection ports count as an implant. Stahl gains +1 die on all physical tests for the scene and lifts the rack as if it were empty. Relais looks at his diagnostic device, and it shows two values instead of one.

The Price

Cyberneticists pay with their conscience. Each of them knows what Asklepios has done, and each of them builds things that could be similar. Many ask themselves every day where the line lies between an enhancement and a change that can no longer be undone. And some realise too late that they have already crossed the line, in themselves. The Nanotech Veterans say you can recognise a Cyberneticist by the fact that they first look at every person's hands, because that is where most implants are located. The Cyberneticists say they look at the scars. Both are true.

OPTIONAL RULE: YOURSELF FIRST

A Cyberneticist who first tests a new implant on themselves for a week gains +2 dice when they then install it in an ally. At the end of the week, the game master rolls a D6: On a 1, it can no longer be completely removed from them.

D6	What the connection has cost you
1	You count the implants of the people around you without wanting to.
2	You have a scar on your forearm, and you no longer know where it came from.
3	You wake up at night and check whether your hand is still yours.
4	A Nanotech Veteran does not greet you. You know why.
5	You have written a code that you encountered again in a dream, changed.
6	Your reflex enhancer sometimes reacts before you have decided.

In Play

- **You connect human and machine.** Implants for the cell, taking over systems, hacking.
- **Ask about the price of every intervention.** Your story is the question of how far one may go.
- **The question for your character:** What is in you that you did not install yourself?

Playing with Other Classes

The Cyberneticist is the natural partner of every **Nanotech Veteran**, even if both do not talk about it: They understand what works inside them, and can help them when the nanites fail. With an **Infiltrator** among the Agents, they take over security systems, with a **Telepath** they build interfaces. A **Psychic Healer** among the Psions senses when an implant harms its wearer, long before a measuring device shows it. And with an **Engineer** in the cell, every machine is an ally.

From the Files

PROGRAMME ASKLEPIOS, ISSUE LIST, EXCERPT
 Batch: S-1. 48 ampoules. Origin: [REDACTED].
 Issued to: Dr. I. Albrecht. Used by: Dr. A. Lund.
 Note: Remaining stock destroyed. Destruction not documented.

INSTITUTE, LAB NOTE

Interface prototype Choir, recording 44.
 Present: 3 Psions with helmet.

Voices in the recording: 4.

Note: Recording to Prometheus. Copy deleted.

INFIRMARY, BLOOD COUNT, EXCERPT

Patient: Dr. A. Lund. Routine examination.

Nanite density: 0.3 per microlitre. Reference value: 0.

Note Dr. Albrecht: Repeat ordered. Do not include in the file.

Questions for Your Cyberneticist

D6	What your character does not yet know
1	What the S on the ampoules stands for
2	Where the nanites in their own blood come from
3	Which song Stahl's daughter dreamed
4	Whose voice was the fourth in the recording
5	What the third project of the Cyberneticists is working on
6	Whether they can remove the nanites from themselves again

Equipment of the Discipline

Item	Effect
Field Op Kit	Implants can be inserted and removed in the field, in half the time. <i>Rare</i> .
Nanite Scanner	Measures nanite density within 20 m, including nanites not from Asklepios. <i>Rare</i> .
Reflex Amplifier	+1 initiative. The implant that almost every Cyberneticist first tests on themselves. <i>Rare</i> .
Pain Filter	Once per scene, the wearer ignores the penalty from being injured. <i>Rare</i> .
Night Vision Lens	Removes penalties from darkness like a night vision device, without having to wear one. <i>Very rare</i> .

Item	Effect
Dead Man's Switch	A chip under the skin that deactivates an implant when its wearer becomes unconscious. In every Institute implant since 2005. No game effect. <i>Common</i> .
Damped Cap	A replica of the 1949 cap (Psion class book), into whose lining the Cyberneticists sew a dampener. Focus device. A Psion wearing it rolls twice for feedback and chooses the milder result. <i>Very rare</i> .

Inserting an implant takes one hour and requires an INT + Cybernetics test against Doable (2), in the field only with a Field Op Kit or the Field Surgeon node. The rule of removability applies to every implant.



The Others and Us

About the biochemists: “They heal the body as it is. We ask how it could be. Both questions are dangerous.”

About the astrobiologists: “They find life in machines. We build machines that want to live. We should talk to each other more.”

About the Physicists: “They ask where the energy comes from. We ask where the data goes.”

About the Engineers: “They were our family before we became our own discipline. Sometimes we wish we could go back.”

Figures of the Discipline

Dr. Arvid Lund. Relais, the sample character of this chapter. He set the ports for Asklepios in 2004. He has recently been measuring nanites in his own blood.

Dr. Ines Albrecht. The head of Asklepios, a biochemist, but for the Cyberneticists the most important figure in the Institute. She is friendly to everyone and answers no questions about the ampoules. She has seen Lund's blood count. She has not yet spoken to him about it.

The Interface. A young Cyberneticist working with the Choir on a connection between helmet and computer so that Psions can record their thoughts. The prototype works. The recordings sometimes contain one more voice than there were Psions in the room.

LETTER FROM DR. ILSE MAREK TO DR. HANS WENDLAND, 1950, EXCERPT

We are not building them cages. We are building them doors that they can close themselves.

If you want to do me a favour, Hans, then build the cap so that a child can take it off alone. And then build a second one that cannot be taken off. For the day we need it. I hope it never comes.

Example Character: Relais

Cyberneticist, Cadet. Dr. Arvid Lund, 49, neurosurgeon from Gothenburg, set the injection ports in 2004 as the youngest member of the Asklepios team. He left the programme afterwards, moved into cybernetics and has since built only implants that can be removed again. After twenty years in the laboratory, he asked to transfer to field service and is starting there as a Cadet. His story is told at the beginning of this chapter.

Relais	Cyberneticist, Cadet
Attributes	STR 1, DEX 4, CON 2, INT 5, WIS 3, WIL 3, CHA 2, MAN 2, COM 2
Skills	Cybernetics 5, Hacking 4, Robotics 3, Academic Knowledge 3, Technology 3, Medicine 3, Perception 3, Dodge 3, Firearms 2, Toughness 2, Stress Management 2, Cryptography 1, Mental Resistance 1
Values	HP 10, Strain Threshold 9, Initiative 5 (with Reflex Amplifier), Defence 2
Abilities	System Integration, Neural Coupling, Adaptive Improvement
Prototype	No. 2301, implant, maturity 1: a nanite scanner in his own forearm
Drive	Idealist. As archetype: The Guilty One

Equipment: Scientist basic equipment, diagnostic and interface device, cyber toolkit, reflex amplifier, compact laptop. Starting funds €8,000.

How to play Relais: You are calm, precise and carry a guilt that no one can take from you. You build only what can be undone. You have just learned that this may no longer apply to yourself. You speak to every Nanotech Veteran you meet, and so far only one has answered you.

The Path Through the Experimental Setup

Rank	New Nodes and Increases
Agent (20 XP)	Field Surgeon 4, Interface 6, Field Pharmacy from Biochemist 4, Workbench from Engineer 4. He saves the remaining 2 XP. Second prototype.
Senior Agent (50 XP)	Reflex Coupling 8, Conversion from Engineer 6, Hacking to 5 for 10, Medicine to 4 for 8. Third prototype.
Veteran (100 XP)	Ghost Hand 10, Antidote from Biochemist 6, Cybernetics to 6 for 12, Robotics to 4 for 8, Stress Management to 3 for 6, Perception to 3 for 6. Fourth prototype.

The Pillar in the Experimental Setup

Level	Node	Effect
I	Field Surgeon	Passive. Implants can be inserted and removed in the field without penalty.
II	Interface	Passive. The neural coupling can also be given to an ally with an implant for one scene. Those who do not master it can use it themselves once per scene with this node.
III	Reflex Coupling	Once per scene, up to two allies with implants gain +1 initiative and +1 defence.
IV	Ghost Hand	Once per scene, they take over a machine, a robot, or a vehicle in sight and control it for the scene.
V	Total Integration	Mastery. Once per mission, they connect to the systems of an entire building and control doors, cameras, lights, and lifts for one scene. Afterwards 1 strain.