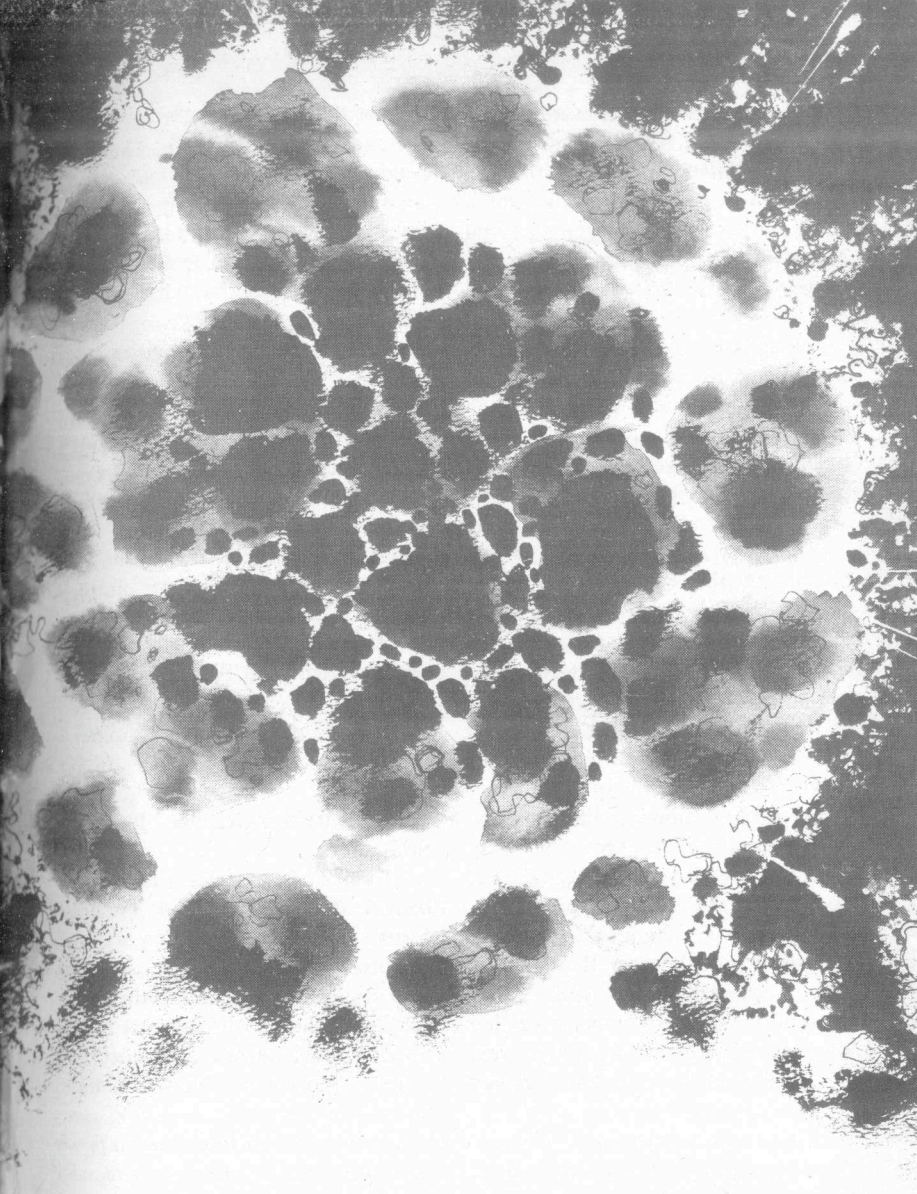


Mike Hinge



Orson Scott Card

No simulator can reproduce *all* the elements
of battle.

Ender's Game

“Whatever your gravity is when you get to the door, remember—the enemy’s gate is *down*. If you step through your own door like you’re out for a stroll, you’re a big target and you deserve to get hit. With more than a flasher.” Ender Wiggin paused and looked over the group. Most were just watching him nervously. A few understanding. A few sullen and resisting.

First day with this army, all fresh from the teacher squads, and Ender had forgotten how young new kids could be. He’d been in it for three years, they’d had six months—nobody over nine years old in the whole bunch. But they were his. At eleven, he was half a year early to be a commander. He’d had a toon of his own and knew a few tricks but there were forty in his new army. Green. All marksmen with a flasher, all in top shape, or they wouldn’t be here—but they were all just as likely as not to get wiped out first time into battle.

“Remember,” he went on, “they can’t see you till you get through that door. But the second you’re out, they’ll be on you. So hit that door the way you want to be when they shoot at you. Legs up under you, going straight *down*.” He pointed at a sullen kid who looked like he was only seven, the smallest of them all. “Which way is down, greenoh!”

“Toward the enemy door.” The answer was quick. It was also surly, saying, “yeah, yeah, now get on with the important stuff.”

“Name, kid?”

“Bean.”

“Get that for size or for brains?”

Bean didn’t answer. The rest laughed a little. Ender had chosen right. This kid *was* younger than the rest, must have been advanced because he was sharp. The others didn’t like him much, they were happy to see him taken down a little. Like Ender’s first commander had taken him down.

“Well, Bean, you’re right onto things. Now I tell you this, nobody’s gonna get through that door without a good chance of getting hit. A lot of you are going to be turned into cement somewhere. Make sure it’s your legs. Right? If only your legs get hit, then only your legs get frozen, and in nullo that’s no sweat.” Ender turned to one of the dazed ones. “What’re legs for? Hmmm?”

Blank stare. Confusion. Stammer.

“Forget it. Guess I’ll have to ask Bean here.”

“Legs are for pushing off walls.” Still bored.

“Thanks, Bean. Get that, everybody?” They all got it, and didn’t like getting it from Bean. “Right. You can’t *see* with legs, you can’t *shoot* with legs, and most of the time they just get in the way. If they get frozen sticking straight out you’ve turned yourself into a blimp. No way to hide. So how do legs go?”

A few answered this time, to prove that Bean wasn’t the only one who knew anything. “Under you. Tucked up under.”

“Right. A shield. You’re kneeling on a shield, and the shield is your own

legs. And there’s a trick to the suits. Even when your legs are flashed you can *still* kick off. I’ve never seen anybody do it but me—but you’re all gonna learn it.”

Ender Wiggin turned on his flasher. It glowed faintly green in his hand. Then he let himself rise in the weightless workout room, pulled his legs under him as though he were kneeling, and flashed both of them. Immediately his suit stiffened at the knees and ankles, so that he couldn’t bend at all.

“Okay, I’m frozen, see?”

He was floating a meter above them. They all looked up at him, puzzled. He leaned back and caught one of the handholds on the wall behind him, and pulled himself flush against the wall.

“I’m stuck at a wall. If I had legs, I’d use legs, and string myself out like a string *bean*, right?”

They laughed.

“But I don’t have legs, and that’s *better*, got it? Because of this.” Ender jackknifed at the waist, then straightened out violently. He was across the workout room in only a moment. From the other side he called to them. “Got that? I didn’t use hands, so I still had use of my flasher. *And* I didn’t have my legs floating five feet behind me. Now watch it again.”

He repeated the jackknife, and caught a handhold on the wall near them. “Now, I don’t just want you to do that when they’ve flashed your legs. I want you to do that when you’ve still got legs, because it’s bet-

ter. And because they’ll never be expecting it. All right now, everybody up in the air and kneeling.”

Most were up in a few seconds. Ender flashed the stragglers, and they dangled, helplessly frozen, while the others laughed. “When I give an order, you move. Got it? When we’re at a door and they clear it, I’ll be giving you orders in two seconds, as soon as I see the setup. And when I give the order you better be out there, because whoever’s out there first is going to win, unless he’s a fool. I’m not. And you better not be, or I’ll have you back in the teacher squads.” He saw more than a few of them gulp, and the frozen ones looked at him with fear. “You guys who are hanging there. You watch. You’ll thaw out in about fifteen minutes, and let’s see if you can catch up to the others.”

For the next half hour Ender had them jackknifing off walls. He called a stop when he saw that they all had the basic idea. They were a good group, maybe. They’d get better.

“Now you’re warmed up,” he said to them, “we’ll start working.”

Ender was the last one out after practice, since he stayed to help some of the slower ones improve on technique. They’d had good teachers, but like all armies they were uneven, and some of them could be a real drawback in battle. Their first battle might be weeks away. It might be tomorrow. A schedule was never printed. The commander just woke up and found a note by his bunk, giving him the time

of his battle and the name of his opponent. So for the first while he was going to drive his boys until they were in top shape—all of them. Ready for anything, at any time. Strategy was nice, but it was worth nothing if the soldiers couldn't hold up under the strain.

He turned the corner into the residence wing and found himself face to face with Bean, the seven-year-old he had picked on all through practice that day. Problems. Ender didn't want problems right now.

"Ho, Bean."

"Ho, Ender."

Pause.

"Sir," Ender said softly.

"We're not on duty."

"In my army, Bean, we're always on duty." Ender brushed past him.

Bean's high voice piped up behind him. "I know what you're doing, Ender, sir, and I'm warning you."

Ender turned slowly and looked at him. "Warning me?"

"I'm the best man you've got. But I'd better be treated like it."

"Or what?" Ender smiled menacingly.

"Or I'll be the worst man you've got. One or the other."

"And what do you want? Love and kisses?" Ender was getting angry.

Bean was unworried. "I want a toon."

Ender walked back to him and stood looking down into his eyes. "I'll give a toon," he said, "to the boys who prove they're worth something. They've got to be good soldiers,

they've got to know how to take orders, they've got to be able to think for themselves in a pinch, and they've got to be able to keep respect. That's how I got to be a commander. That's how you'll get to be a toon leader."

Bean smiled. "That's fair. If you actually work that way, I'll be a toon leader in a month."

Ender reached down and grabbed the front of his uniform and shoved him into the wall. "When I say I work a certain way, Bean, then that's the way I work."

Bean just smiled. Ender let go of him and walked away, and didn't look back. He was sure, without looking, that Bean was still watching, still smiling, still just a little contemptuous. He might make a good toon leader at that. Ender would keep an eye on him.

Captain Graff, six foot two and a little chubby, stroked his belly as he leaned back in his chair. Across his desk sat Lieutenant Anderson, who was earnestly pointing out high points on a chart.

"Here it is, Captain," Anderson said. "Ender's already got them doing a tactic that's going to throw off everyone who meets it. Doubled their speed."

Graff nodded.

"And you know his test scores. He thinks well, too."

Graff smiled. "All true, all true, Anderson, he's a fine student, shows real promise."

They waited.

Graff sighed. "So what do you want me to do?"

"Ender's the one. He's got to be."

"He'll never be ready in time, Lieutenant. He's eleven, for heaven's sake, man, what do you want, a miracle?"

"I want him into battles, every day starting tomorrow. I want him to have a year's worth of battles in a month."

Graff shook his head. "That would have his army in the hospital."

"No sir. He's getting them into form. And we need Ender."

"Correction, Lieutenant. We need somebody. You think it's Ender."

"All right, I think it's Ender. Which of the commanders if it isn't him?"

"I don't know, Lieutenant." Graff ran his hands over his slightly fuzzy bald head. "These are children, Anderson. Do you realize that? Ender's army is nine years old. Are we going to put them against the older kids? Are we going to put them through hell for a month like that?"

Lieutenant Anderson leaned even further over Graff's desk.

"Ender's test scores, Captain!"

"I've seen his bloody test scores! I've watched him in battle, I've listened to tapes of his training sessions, I've watched his sleep patterns, I've heard tapes of his conversations in the corridors and in the bathrooms, I'm more aware of Ender Wiggins than you could possibly imagine! And against all the arguments, against his obvious qualities, I'm weighing one thing. I have this picture of Ender a

year from now, if you have your way. I see him completely useless, worn down, a failure, because he was pushed farther than he or any living person could go. But it doesn't weigh enough, does it, Lieutenant, because there's a war on, and our best talent is gone, and the biggest battles are ahead. So give Ender a battle every day this week. And then bring me a report."

Anderson stood and saluted. "Thank you sir."

He had almost reached the door when Graff called his name. He turned and faced the captain.

"Anderson," Captain Graff said. "Have you been outside, lately I mean?"

"Not since last leave, six months ago."

"I didn't think so. Not that it makes any difference. But have you ever been to Beaman Park, there in the city? Hmm? Beautiful park. Trees. Grass. No nullo, no battles, no worries. Do you know what else there is in Beaman Park?"

"What, sir?" Lieutenant Anderson asked.

"Children," Graff answered.

"Of course children," said Anderson.

"I mean children. I mean kids who get up in the morning when their mothers call them and they go to school and then in the afternoons they go to Beaman Park and play. They're happy, they smile a lot, they laugh, they have fun. Hmmm?"

"I'm sure they do sir."

"Is that all you can say, Anderson?"

Anderson cleared his throat. "It's good for children to have fun, I think, sir. I know I did when I was a boy. But right now the world needs soldiers. And this is the way to get them."

Graff nodded and closed his eyes. "Oh, indeed, you're right, by statistical proof and by all the important theories, and dammit they work and the system is right but all the same Ender's older than I am. He's not a child. He's barely a person."

"If that's true, sir, then at least we all know that Ender is making it possible for the others of his age to be playing in the park."

"And Jesus died to save all men, of course." Graff sat up and looked at Anderson almost sadly. "But we're the ones," Graff said, "We're the ones who are driving in the nails."

Ender Wiggins lay on his bed staring at the ceiling. He never slept more than five hours a night—but the lights went off at 2200 and didn't come on again until 0600. So he stared at the ceiling and thought. He'd had his army for three and a half weeks. Dragon Army. The name was assigned, and it wasn't a lucky one. Oh, the charts said that about nine years ago a Dragon Army had done fairly well. But for the next six years the name had been attached to inferior armies, and finally, because of the superstition that was beginning to play about the name, Dragon Army was retired. Until now. And now,

Ender thought smiling, Dragon Army was going to take them by surprise.

The door opened softly. Ender did not turn his head. Someone stepped softly into his room, then left with the quiet sound of the door shutting. When soft steps died away Ender rolled over and saw a white slip of paper lying on the floor. He reached down and picked it up.

"Dragon Army against Rabbit Army, Ender Wiggins and Carn Carby, 0700."

The first battle. Ender got out of bed and quickly dressed. He went rapidly to the rooms of each of his toon leaders and told them to rouse their boys. In five minutes they were all gathered in the corridor, sleepy and slow. Ender spoke softly.

"First battle, 0700 against Rabbit Army. I've fought them twice before but they've got a new commander. Never heard of him. They're an older group, though, and I know a few of their old tricks. Now wake up. Run, doublefast, warmup in workroom three."

For an hour and a half they worked out, with three mockbattles and calisthenics in the corridor out of the nullo. Then for fifteen minutes they all lay up in the air, totally relaxing in the weightlessness. At 0650 Ender roused them and they hurried into the corridor. Ender led them down the corridor, running again, and occasionally leaping to touch a light panel on the ceiling. The boys all touched the same light panel. And at 0658 they reached their gate to the battleroom.

The members of Toons C and D grabbed the first eight handholds in the ceiling of the corridor. Toons A, B, and E crouched on the floor. Ender hooked his feet into two handholds in the middle of the ceiling, so he was out of everyone's way.

"Which way is the enemy's door?" he hissed.

"Down!" they whispered back, and laughed.

"Flashers on." The boxes in their hands glowed green. They waited for a few seconds more, and then the gray wall in front of them disappeared and the battleroom was visible.

Ender sized it up immediately. The familiar open grid of the most early games, like the monkey bars at the park, with seven or eight boxes scattered through the grid. They called the boxes *stars*. There were enough of them, and in forward enough positions, that they were worth going for. Ender decided this in a second, and he hissed, "Spread to near stars. E hold!"

The four groups in the corners plunged through the forcefield at the doorway and fell down into the battleroom. Before the enemy even appeared through the opposite gate Ender's army had spread from the door to the nearest stars.

Then the enemy soldiers came through the door. From their stance Ender knew they had been in a different gravity, and didn't know enough to disorient themselves from it. They came through standing up, their entire bodies spread and defenseless.

"Kill 'em, E!" Ender hissed, and threw himself out the door knees first, with his flasher between his legs and firing. While Ender's group flew across the room the rest of Dragon Army lay down a protecting fire, so that E group reached a forward position with only one boy frozen completely, though they had all lost the use of their legs—which didn't impair them in the least. There was a lull as Ender and his opponent, Carn Carby, assessed their positions. Aside from Rabbit Army's losses at the gate, there had been few casualties, and both armies were near full strength. But Carn had no originality—he was in a four-corner spread that any five-year-old in the teacher squads might have thought of. And Ender knew how to defeat it.

He called out, loudly, "E covers A, C down. B, D angle east wall." Under E toon's cover, B and D toons lunged away from their stars. While they were still exposed, A and C toons left their stars and drifted toward the near wall. They reached it together, and together jackknifed off the wall. At double the normal speed they appeared behind the enemy's stars, and opened fire. In a few seconds the battle was over, with the enemy almost entirely frozen, including the commander, and the rest scattered to the corners. For the next five minutes, in squads of four, Dragon Army cleaned out the dark corners of the battleroom and shepherded the enemy into the center, where their bodies, frozen at impossible angles, jostled

each other. Then Ender took three of his boys to the enemy gate and went through the formality of reversing the one-way field by simultaneously touching a Dragon Army helmet at each corner. Then Ender assembled his army in vertical files near the knot of frozen Rabbit Army soldiers.

Only three of Dragon Army's soldiers were immobile. Their victory margin—38 to 0—was ridiculously high, and Ender began to laugh. Dragon Army joined him, laughing long and loud. They were still laughing when Lieutenant Anderson and Lieutenant Morris came in from the teachergate at the south end of the battleroom.

Lieutenant Anderson kept his face stiff and unsmiling, but Ender saw him wink as he held out his hand and offered the stiff, formal congratulations that were ritually given to the victor in the game.

Morris found Carn Carby and unfroze him, and the thirteen-year-old came and presented himself to Ender, who laughed without malice and held out his hand. Carn graciously took Ender's hand and bowed his head over it. It was that or be flashed again.

Lieutenant Anderson dismissed Dragon Army, and they silently left the battleroom through the enemy's door—again part of the ritual. A light was blinking on the north side of the square door, indicating where the gravity was in that corridor. Ender, leading his soldiers, changed his orientation and went through the forcefield and into gravity on his feet.

His army followed him at a brisk run back to the workroom. When they got there they formed up into squads, and Ender hung in the air, watching them.

"Good first battle," he said, which was excuse enough for a cheer, which he quieted. "Dragon Army did all right against Rabbits. But the enemy isn't always going to be that bad. And if that had been a good army we would have been smashed. We still would have won, but we would have been smashed. Now let me see B and D toons out here. Your takeoff from the stars was way too slow. If Rabbit Army knew how to aim a flasher, you all would have been frozen solid before A and C even got to the wall."

They worked out for the rest of the day.

That night Ender went for the first time to the commanders' mess hall. No one was allowed there until he had won at least one battle, and Ender was the youngest commander ever to make it. There was no great stir when he came in. But when some of the other boys saw the Dragon on his breast pocket, they stared at him openly, and by the time he got his tray and sat at an empty table, the entire room was silent, with the other commanders watching him. Intensely self-conscious, Ender wondered how they all knew, and why they all looked so hostile.

Then he looked above the door he had just come through. There was a huge scoreboard across the entire wall. It showed the win/loss record for

the commander of every army; that day's battles were lit in red. Only four of them. The other three winners had barely made it—the best of them had only two men whole and eleven mobile at the end of the game. Dragon Army's score of thirty-eight mobile was embarrassingly better.

Other new commanders had been admitted to the commanders' mess hall with cheers and congratulations. Other new commanders hadn't won thirty-eight to zero.

Ender looked for Rabbit Army on the scoreboard. He was surprised to find that Carn Carby's score to date was eight wins and three losses. Was he that good? Or had he only fought against inferior armies? Whichever, there was still a zero in Carn's mobile and whole columns, and Ender looked down from the scoreboard grinning. No one smiled back, and Ender knew that they were afraid of him, which meant that they would hate him, which meant that anyone who went into battle against Dragon Army would be scared and angry and incompetent. Ender looked for Carn Carby in the crowd, and found him not too far away. He stared at Carby until one of the other boys nudged the Rabbit commander and pointed to Ender. Ender smiled again and waved slightly. Carby turned red, and Ender, satisfied, leaned over his dinner and began to eat.

At the end of the week Dragon Army had fought seven battles in seven days. The score stood 7 wins and

0 losses. Ender had never had more than five boys frozen in any game. It was no longer possible for the other commanders to ignore Ender. A few of them sat with him and quietly conversed about game strategies that Ender's opponents had used. Other much larger groups were talking with the commanders that Ender had defeated, trying to find out what Ender had done to beat them.

In the middle of the meal the teacher door opened and the groups fell silent as Lieutenant Anderson stepped in and looked over the group. When he located Ender he strode quickly across the room and whispered in Ender's ear. Ender nodded, finished his glass of water, and left with the lieutenant. On the way out, Anderson handed a slip of paper to one of the older boys. The room became very noisy with conversation as Anderson and Ender left.

Ender was escorted down corridors he had never seen before. They didn't have the blue glow of the soldier corridors. Most were wood paneled, and the floors were carpeted. The doors were wood, with nameplates on them, and they stopped at one that said, "Captain Graff, supervisor." Anderson knocked softly, and a low voice said, "Come in."

They went in. Captain Graff was seated behind a desk, his hands folded across his pot belly. He nodded, and Anderson sat. Ender also sat down. Graff cleared his throat and spoke.

"Seven days since your first battle, Ender."

Ender did not reply.
“Won seven battles, one every day.”

Ender nodded.

“Scores unusually high, too.”

Ender blinked.

“Why?” Graff asked him.

Ender glanced at Anderson, and then spoke to the captain behind the desk. “Two new tactics, sir. Legs doubled up as a shield, so that a flash doesn’t immobilize. Jackknife take-offs from the walls. Superior strategy, as Lieutenant Anderson taught, think places, not spaces. Five toons of eight instead of four of ten. Incompetent opponents. Excellent toon leaders, good soldiers.”

Graff looked at Ender without expression. Waiting for what, Ender thought. Lieutenant Anderson spoke.

“Ender, what’s the condition of your army.”

“A little tired, in peak condition, morale high, learning fast. Anxious for the next battle.”

Anderson looked at Graff, and Graff shrugged slightly. Then he nodded, and Anderson smiled. Graff turned to Ender.

“Is there anything you want to know?”

Ender held his hands loosely in his lap. “When are you going to put us up against a good army?”

Anderson was surprised, and Graff laughed out loud. The laughter rang in the room, and when it stopped, Graff handed a piece of paper to Ender. “Now,” the Captain said, and Ender read the paper.

“Dragon Army against Leopard Army, Ender Wiggins and Pol Slatery, 2000.”

Ender looked up at Captain Graff. “That’s ten minutes from now, sir.”

Graff smiled. “Better hurry, then, boy.”

As Ender left he realized Pol Slatery was the boy who had been handed his orders as Ender left the mess hall.

He got to his army five minutes later. Three toon leaders were already undressed and lying naked on their beds. He sent them all flying down the corridors to rouse their toons, and gathered up their suits himself. As all his boys were assembled in the corridor, most of them still getting dressed, Ender spoke to them.

“This one’s hot and there’s no time. We’ll be late to the door, and the enemy’ll be deployed right outside our gate. Ambush, and I’ve never heard of it happening before. So we’ll take our time at the door. E toon, keep your belts loose, and give your flashers to the leaders and seconds of the other toons.”

Puzzled, E toon complied. By then all were dressed, and Ender led them at a trot to the gate. When they reached it the forcefield was already on one-way, and some of his soldiers were panting. They had had one battle that day and a full workout. They were tired.

Ender stopped at the entrance and looked at the placement of the enemy soldiers. Most of them were grouped not more than twenty feet out from

the gate. There was no grid, there were no stars. A big empty space. Where were the other enemy soldiers? There should have been ten more.

“They’re flat against this wall,” Ender said, “where we can’t see them.”

He thought for a moment, then took two of the toons and made them kneel, their hands on their hips. Then he flashed them, so that their bodies were frozen rigid.

“You’re shields,” Ender said, and then had boys from two other toons kneel on their legs, and hook both arms under the frozen boys’ shoulders. Each boy was holding two flashers. Then Ender and the members of the last toon picked up the duos, three at a time, and threw them out the door.

Of course, the enemy opened fire immediately. But they only hit the boys who were already flashed, and in a few moments pandemonium broke out in the battleroom. All the soldiers of Leopard Army were easy targets as they lay pressed flat against the wall, and Ender’s soldiers, armed with two flashers each, carved them up easily. Pol Slatery reacted quickly, ordering his men away from the wall, but not quickly enough—only a few were able to move, and they were flashed before they could get a quarter of the way across the battleroom.

When the battle was over Dragon Army had only twelve boys whole, the lowest score they had ever had. But Ender was satisfied. And during the ritual of surrender Pol Slatery broke

form by shaking hands and asking, “Why did you wait so long getting out of the gate?”

Ender glanced at Anderson, who was floating nearby. “I was informed late,” he said. “It was an ambush.”

Slatery grinned, and gripped Ender’s hand again. “Good game.”

Ender didn’t smile at Anderson this time. He knew that now the games would be arranged against him, to even up the odds. He didn’t like it.

It was 2150, nearly time for lights out, when Ender knocked at the door of the room shared by Bean and three other soldiers. One of the others opened the door, then stepped back and held it wide. Ender stood for a moment, then asked if he could come in. They answered, of course, of course, come in, and he walked to the upper bunk, where Bean had set down his book and was leaning on one elbow to look at Ender.

“Bean, can you give me twenty minutes?”

“Near lights out,” Bean answered.

“My room,” Ender answered. “I’ll cover for you.” Bean sat up and slid off his bed. Together he and Ender padded silently down the corridor to Ender’s room. Bean entered first, and Ender closed the door behind them.

“Sit down,” Ender said, and they both sat on the edge of the bed, looking at each other.

“Remember four weeks ago, Bean? When you told me to make you a toon leader?”

“Yeah.”

"I've made five toon leaders since then, haven't I? And none of them was you."

Bean looked at him calmly.

"Was I right?" Ender asked.

"Yes, sir," Bean answered.

Ender nodded. "How have you done in these battles?"

Bean cocked his head to one side. "I've never been immobilized, sir, and I've immobilized forty-three of the enemy. I've obeyed orders quickly, and I've commanded a squad in mop-up and never lost a soldier."

"Then you'll understand this." Ender paused, then decided to back up and say something else first.

"You know you're early, Bean, by a good half year. I was, too, and I've been made a commander six months early. Now they've put me into battles after only three weeks of training with my army. They've given me eight battles in seven days. I've already had more battles than boys who were made commander four months ago. I've won more battles than many who've been commanders for a year. And then tonight. You know what happened tonight."

Bean nodded. "They told you late."

"I don't know what the teachers are doing. But my army is getting tired, and I'm getting tired, and now they're changing the rules of the game. You see, Bean, I've looked in the old charts. No one has ever destroyed so many enemies and kept so many of his own soldiers whole in the history of the game. I'm unique—and I'm get-

ting unique treatment."

Bean smiled. "You're the best, Ender."

Ender shook his head. "Maybe. But it was no accident that I got the soldiers I got. My worst soldier could be a toon leader in another army. I've got the best. They've loaded things my way—but now they're loading it against me. I don't know why. But I know I have to be ready for it. I need your help."

"Why mine?"

"Because even though there are some better soldiers than you in Dragon Army—not many, but some—there's nobody who can think better and faster than you." Bean said nothing. They both knew it was true.

Ender continued, "I need to be ready, but I can't restrain the whole army. So I'm going to cut every toon down by one, including you—and you and four others will be a special squad under me. And you'll learn to do some new things. Most of the time you'll be in the regular toons just like you are now. But when I need you. See?"

Bean smiled and nodded. "That's right, that's good, can I pick them myself?"

"One from each toon except your own, and you can't take any toon leaders."

"What do you want us to do?"

"Bean, I don't know. I don't know what they'll throw at us. What would you do if suddenly our flashers didn't work, and the enemy's did? What would you do if we had to face two armies at once? The only thing I know

is—we're not going for score anymore. We're going for the enemy's gate. That's when the battle is technically won—four helmets at the corners of the gate. I'm going for quick kills, battles ended even when we're outnumbered. Got it? You take them for two hours during regular workout. Then you and I and your soldiers, we'll work at night after dinner."

"We'll get tired."

"I have a feeling we don't know what tired is."

Ender reached out and took Bean's hand, and gripped it. "Even when it's rigged against us, Bean. We'll win."

Bean left in silence and padded down the corridor.

Dragon Army wasn't the only army working out after hours now. The other commanders finally realized they had some catching up to do. From early morning to lights out soldiers all over Training and Command Center, none of them over fourteen years old, were learning to jackknife off walls and use each other as living shields.

But while other commanders mastered the techniques that Ender had used to defeat them, Ender and Bean worked on solutions to problems that had never come up.

There were still battles every day, but for a while they were normal, with grids and stars and sudden plunges through the gate. And after the battles, Ender and Bean and four other soldiers would leave the main group and practice strange maneuvers. At-

tacks without flashers, using feet to physically disarm or disorient an enemy. Using four frozen soldiers to reverse the enemy's gate in less than two seconds. And one day Bean came to workout with a 300-meter cord.

"What's that for?"

"I don't know yet." Absently Bean spun one end of the cord. It wasn't more than an eighth of an inch thick, but it could have lifted ten adults without breaking.

"Where did you get it?"

"Commissary. They asked what for. I said to practice tying knots."

Bean tied a loop in the end of the rope and slid it over his shoulders.

"Here, you two, hang onto the wall here. Now don't let go of the rope. Give me about fifty yards of slack." They complied, and Bean moved about ten feet from them along the wall. As soon as he was sure they were ready, he jackknifed off the wall and flew straight out, fifty meters. Then the rope snapped taut. It was so fine that it was virtually invisible, but it was strong enough to force Bean to veer off at almost a right angle. It happened so suddenly that he had inscribed a perfect arc and hit the wall before most of the other soldiers knew what had happened. Bean did a perfect rebound and drifted quickly back where Ender and the others waited for him.

Many of the soldiers in the five regular squads hadn't noticed the rope, and were demanding to know how it was done. It was impossible to change direction that abruptly in nul-

lo. Bean just laughed.

"Wait till the next game without a grid! They'll never know what hit them."

They never did. The next game was only two hours later, but Bean and two others had become pretty good at aiming and shooting while they flew at ridiculous speeds at the end of the rope. The slip of paper was delivered, and Dragon Army trotted off to the gate, to battle with Griffin Army. Bean coiled the rope all the way.

When the gate opened, all they could see was a large brown star only fifteen feet away, completely blocking their view of the enemy's gate.

Ender didn't pause. "Bean, give yourself fifty feet of rope and go around the star." Bean and his four soldiers dropped through the gate and in a moment Bean was launched sideways away from the star. The rope snapped taut, and Bean flew forward. As the rope was stopped by each edge of the star in turn, his arc became tighter and his speed greater, until when he hit the wall only a few feet away from the gate he was barely able to control his rebound to end up behind the star. But he immediately moved all his arms and legs so that those waiting inside the gate would know that the enemy hadn't flashed him anywhere.

Ender dropped through the gate, and Bean quickly told him how Griffin Army was situated. "They've got two squares of stars, all the way around the gate. All their soldiers are under cover, and there's no way to hit

any of them until we're clear to the bottom wall. Even with shields, we'd get there at half strength and we wouldn't have a chance."

"They moving?" Ender asked.

"Do they need to?"

Ender thought for a moment. "This one's tough. We'll go for the gate, Bean."

Griffin Army began to call out to them.

"Hey, is anybody there!"

"Wake up, there's a war on!"

"We wanna join the picnic!"

They were still calling when Ender's army came out from behind their star with a shield of fourteen frozen soldiers. William Bee, Griffin Army's commander, waited patiently as the screen approached, his men waiting at the fringes of their stars for the moment when whatever was behind the screen became visible. About ten meters away the screen exploded as the soldiers behind it shoved the screen north. The momentum carried them south twice as fast, and at the same moment the rest of Dragon Army burst from behind their star at the opposite end of the room, firing rapidly.

William Bee's boys joined battle immediately, of course, but William Bee was far more interested in what had been left behind when the shield disappeared. A formation of four frozen Dragon Army soldiers was moving headfirst toward the Griffin Army gate, held together by another frozen soldier whose feet and hands were hooked through their belts. A

sixth soldier hung to his wrist and trailed like the tail of a kite. Griffin Army was winning the battle easily, and William Bee concentrated on the formation as it approached the gate. Suddenly the soldier trailing in back moved—he wasn't frozen at all! And even though William Bee flashed him immediately, the damage was done. The formation drifted to the Griffin Army gate, and their helmets touched all four corners simultaneously. A buzzer sounded, the gate reversed, and the frozen soldier in the middle was carried by momentum right through the gate. All the flashers stopped working, and the game was over.

The teacher door opened and Lieutenant Anderson came in. Anderson stopped himself with a slight movement of his hands when he reached the center of the battleroom. "Ender," he called, breaking protocol. One of the frozen Dragon soldiers near the south wall tried to call through jaws that were clamped shut by the suit. Anderson drifted to him and unfroze him.

Ender was smiling.

"I beat you again, sir," Ender said. Anderson didn't smile.

"That's nonsense, Ender," Anderson said softly. "Your battle was with William Bee of Griffin Army."

Ender raised an eyebrow.

"After that maneuver," Anderson said, "the rules are being revised to require that all of the enemy's soldiers must be immobilized before the gate can be reversed."

"That's all right," Ender said. "It could only work once, anyway." Anderson nodded, and was turning away when Ender added, "Is there going to be a new rule that armies be given equal positions to fight from?"

Anderson turned back around. "If you're in one of the positions, Ender, you can hardly call them equal, whatever they are."

William Bee counted carefully and wondered how in the world he had lost when not one of his soldiers had been flashed, and only four of Ender's soldiers were even mobile.

And that night as Ender came into the commanders' mess hall, he was greeted with applause and cheers, and his table was crowded with respectful commanders, many of them two or three years older than he was. He was friendly, but while he ate he wondered what the teachers would do to him in his next battle. He didn't need to worry. His next two battles were easy victories, and after that he never saw the battleroom again.

It was 2100 and Ender was a little irritated to hear someone knock at his door. His army was exhausted, and he had ordered them all to be in bed after 2030. The last two days had been regular battles, and Ender was expecting the worst in the morning.

It was Bean. He came in sheepishly, and saluted.

Ender returned his salute and snapped, "Bean, I wanted everybody in bed."

Bean nodded but didn't leave.

Ender considered ordering him out. But as he looked at Bean it occurred to him for the first time in weeks just how young Bean was. He had turned eight a week before, and he was still small and—no, Ender thought, he wasn't young. Nobody was young. Bean had been in battle, and with a whole army depending on him he had come through and won. And even though he was small, Ender could never think of him as young again.

Ender shrugged and Bean came over and sat on the edge of the bed. The younger boy looked at his hands for a while, and finally Ender grew impatient and asked, "Well, what is it?"

"I'm transferred. Got orders just a few minutes ago."

Ender closed his eyes for a moment. "I knew they'd pull something new. Now they're taking—where are you going?"

"Rabbit Army."

"How can they put you under an idiot like Carn Carby!"

"Carn was graduated. Support squads."

Ender looked up. "Well, who's commanding Rabbit then?"

Bean held his hands out helplessly.

"Me," he said.

Ender nodded, and then smiled. "Of course, After all, you're only four years younger than the regular age."

"It isn't funny," Bean said. "I don't know what's going on here. First all the changes in the game. And now this. I wasn't the only one transferred, either, Ender. Ren, Peder, Wins,

Younger, Paul. All commanders now."

Ender stood up angrily and strode to the wall. "Every damn toon leader I've got!" he said, and whirled to face Bean. "If they're going to break up my army, Bean, why did they bother making me a commander at all?"

Bean shook his head. "I don't know. You're the best, Ender. Nobody's ever done what you've done. Nineteen battles in fifteen days, sir, and you won every one of them, no matter what they did to you."

"And now you and the others are commanders. You know every trick I've got, I trained you, and who am I supposed to replace you with? Are they going to stick me with six green-ohs?"

"It stinks, Ender, but you know that if they gave you five crippled midgets and armed you with a roll of toilet paper you'd win."

They both laughed, and then they noticed that the door was open.

Lieutenant Anderson stepped in. He was followed by Captain Graff.

"Ender Wiggins," Graff said, holding his hands across his stomach.

"Yes sir," Ender answered.

"Orders."

Anderson extended a slip of paper. Ender read it quickly, then crumpled it, still looking at the air where the paper had been. After a few moments he asked, "Can I tell my army?"

"They'll find out," Graff answered. "It's better not to talk to them after orders. It makes it easier."

"For you or for me?" Ender asked.

He didn't wait for an answer. He turned to Bean, took his hand for a moment, and headed for the door.

"Wait," Bean said. "Where are you going? Tactical or Support School?"

"Command School," Ender answered, and then he was gone and Anderson closed the door.

Command School, Bean thought. Nobody went to Command School until they had gone through three years of Tactical. But then, nobody went to Tactical until they had been through at least five years of Battle School. Ender had only had three.

The system was breaking up. No doubt about it, Bean thought. Either somebody at the top was going crazy, or something was going wrong with the war—the real war, the one they were training to fight in. Why else would they break down the training system, advance somebody—even somebody as good as Ender—straight to Command School? Why else would they have an eight-year-old greenoh like Bean command an army?

Bean wondered about it for a long time, and then he finally lay down on Ender's bed and realized that he'd never see Ender again, probably. For some reason that made him want to cry. But he didn't cry, of course. Training in the preschools had taught him how to force down emotions like that. He remembered how his first teacher, when he was three, would have been upset to see his lip quivering and his eyes full of tears.

Bean went through the relaxing routine until he didn't feel like crying

anymore. Then he drifted off to sleep. His hand was near his mouth. It lay on his pillow hesitantly, as if Bean couldn't decide whether to bite his nails or suck on his fingertips. His forehead was creased and furrowed. His breathing was quick and light. He was a soldier, and if anyone had asked him what he wanted to be when he grew up, he wouldn't have known what they meant.

There's a war on, they said, and that was excuse enough for all the hurry in the world. They said it like a password and flashed a little card at every ticket counter and customs check and guard station. It got them to the head of every line.

Ender Wiggin was rushed from place to place so quickly he had no time to examine anything. But he did see trees for the first time. He saw men who were not in uniform. He saw women. He saw strange animals that didn't speak, but that followed docilely behind women and small children. He saw suitcases and conveyor belts and signs that said words he had never heard of. He would have asked someone what the words meant, except that purpose and authority surrounded him in the persons of four very high officers who never spoke to each other and never spoke to him.

Ender Wiggin was a stranger to his world he was being trained to save. He did not remember ever leaving Battle School before. His earliest memories were of childish war games under the direction of a teacher, of meals with

other boys in the gray and green uniforms of the armed forces of his world. He did not know that the gray represented the sky and the green represented the great forests of his planet. All he knew of the world was from vague references to "outside."

And before he could make any sense of the strange world he was seeing for the first time, they enclosed him again within the shell of the military, where nobody had to say there's a war on anymore because nobody in the shell of the military forgot it for a single instant in a single day.

They put him in a space ship and launched him to a large artificial satellite that circled the world.

This space station was called Command School. It held the ansible.

On his first day Ender Wiggin was taught about the ansible and what it meant to warfare. It meant that even though the starships of today's battles were launched a hundred years ago, the commanders of the starships were men of today, who used the ansible to send messages to the computers and the few men on each ship. The ansible sent words as they were spoken, orders as they were made. Battleplans as they were fought. Light was a pedestrian.

For two months Ender Wiggin didn't meet a single person. They came to him namelessly, taught him what they knew, and left him to other teachers. He had no time to miss his friends at Battle School. He only had time to learn how to operate the simulator, which flashed battle patterns

around him as if he were in a starship at the center of the battle. How to command mock ships in mock battles by manipulating the keys on the simulator and speaking words into the ansible. How to recognize instantly every enemy ship and the weapons it carried by the pattern that the simulator showed. How to transfer all that he learned in the nullo battles at Battle School to the starship battles at Command School.

He had thought the game was taken seriously before. Here they hurried him through every step, were angry and worried beyond reason every time he forgot something or made a mistake. But he worked as he had always worked, and learned as he had always learned. After a while he didn't make any more mistakes. He used the simulator as if it were a part of himself. Then they stopped being worried and they gave him a teacher. The teacher was a person at last, and his name was Maezr Rackham.

Maezr Rackham was sitting cross-legged on the floor when Ender awoke. He said nothing as Ender got up and showered and dressed, and Ender did not bother to ask him anything. He had long since learned that when something unusual was going on, he would find out more information faster by waiting than by asking.

Maezr still hadn't spoken when Ender was ready and went to the door to leave the room. The door didn't open. Ender turned to face the man

sitting on the floor. Maezr was at least forty, which made him the oldest man Ender had ever seen close up. He had a day's growth of black and white whiskers that grizzled his face only slightly less than his close-cut hair. His face sagged a little and his eyes were surrounded by creases and lines. He looked at Ender without interest.

Ender turned back to the door and tried again to open it.

"All right," he said, giving up. "Why's the door locked?"

Maezr continued to look at him blankly.

Ender became impatient. "I'm going to be late. If I'm not supposed to be there until later, then tell me so I can go back to bed." No answer. "Is it a guessing game?" Ender asked. No answer. Ender decided that maybe the man was trying to make him angry, so he went through a relaxing exercise as he leaned on the door, and soon he was calm again. Maezr didn't take his eyes off Ender.

For the next two hours the silence endured, Maezr watching Ender constantly, Ender trying to pretend he didn't notice the old man. The boy became more and more nervous, and finally ended up walking from one end of the room to the other in a sporadic pattern.

He walked by Maezr as he had several times before, and Maezr's hand shot out and pushed Ender's left leg into his right in the middle of a step. Ender fell flat on the floor.

He leaped to his feet immediately, furious. He found Maezr sitting calm-

ly, cross-legged, as if he had never moved. Ender stood poised to fight. But the other's immobility made it impossible for Ender to attack, and he found himself wondering if he had only imagined the old man's hand tripping him up.

The pacing continued for another hour, with Ender Wiggin trying the door every now and then. At last he gave up and took off his uniform and walked to his bed.

As he leaned over to pull the covers back, he felt a hand jab roughly between his thighs and another hand grab his hair. In a moment he had been turned upside down. His face and shoulders were being pressed into the floor by the old man's knee, while his back was excruciatingly bent and his legs were pinioned by Maezr's arm. Ender was helpless to use his arms, and he couldn't bend his back to gain slack so he could use his legs. In less than two seconds the old man had completely defeated Ender Wiggin.

"All right," Ender gasped. "You win."

Maezr's knee thrust painfully downward.

"Since when," Maezr asked in a soft, rasping voice, "do you have to tell the enemy when he has won?"

Ender remained silent.

"I surprised you once, Ender Wiggin. Why didn't you destroy me immediately afterward? Just because I looked peaceful? You turned your back on me. Stupid. You have learned nothing. You have never had a teacher."



Ender was angry now. "I've had too many damned teachers, how was I supposed to know you'd turn out to be a—" Ender hunted for a word. Maezr supplied one.

"An enemy, Ender Wiggin," Maezr whispered. "I am your enemy, the first one you've ever had who was smarter than you. There is no teacher but the enemy, Ender Wiggin. No one but the enemy will ever tell you what the enemy is going to do. No one but the enemy will ever teach you how to destroy and conquer. I am your enemy, from now on. From now on I am your teacher."

Then Maezr let Ender's legs fall to the floor. Because the old man still held Ender's head to the floor, the boy couldn't use his arms to compensate, and his legs hit the plastic surface with a loud crack and a sickening pain that made Ender wince. Then Maezr stood and let Ender rise.

Slowly the boy pulled his legs under him, with a faint groan of pain, and he knelt on all fours for a moment, recovering. Then his right arm flashed out. Maezr quickly danced back and Ender's hand closed on air as his teacher's foot shot forward to catch Ender on the chin.

Ender's chin wasn't there. He was lying flat on his back, spinning on the floor, and during the moment that Maezr was off balance from his kick Ender's feet smashed into Maezr's other leg. The old man fell on the ground in a heap.

What seemed to be a heap was

really a hornet's nest. Ender couldn't find an arm or a leg that held still long enough to be grabbed, and in the meantime blows were landing on his back and arms. Ender was smaller—he couldn't reach past the old man's flailing limbs.

So he leaped back out of the way and stood poised near the door.

The old man stopped thrashing about and sat up, cross-legged again, laughing. "Better, this time, boy. But slow. You will have to be better with a fleet than you are with your body or no one will be safe with you in command. Lesson learned?"

Ender nodded slowly.

Maezr smiled. "Good. Then we'll never have such a battle again. All the rest with the simulator. I will program your battles, I will devise the strategy of your enemy, and you will learn to be quick and discover what tricks the enemy has for you. Remember, boy. From now on the enemy is more clever than you. From now on the enemy is stronger than you. From now on you are always about to lose."

Then Maezr's face became serious

again. "You will be about to lose, Ender, but you will win. You will learn to defeat the enemy. He will teach you how."

Maezr got up and walked toward the door. Ender stepped back out of the way. As the old man touched the handle of the door, Ender leaped into the air and kicked Maezr in the small of the back with both feet. He hit hard enough that he rebounded onto his feet, as Maezr cried out and collapsed on the floor.

Maezr got up slowly, holding onto the door handle, his face contorted with pain. He seemed disabled, but Ender didn't trust him. He waited warily. And yet in spite of his suspicion he was caught off guard by Maezr's speed. In a moment he found himself on the floor near the opposite wall, his nose and lip bleeding where his face had hit the bed. He was able to turn enough to see Maezr open the door and leave. The old man was limping and walking slowly.

Ender smiled in spite of the pain, then rolled over onto his back and laughed until his mouth filled with blood and he started to gag. Then he got up and painfully made his way to the bed. He lay down and in a few minutes a medic came and took care of his injuries.

As the drug had its effect and Ender drifted off to sleep he remembered the way Maezr limped out of his room and laughed again. He was still laughing softly as his mind went blank and the medic pulled the blanket over him and snapped off the light. He

slept until pain woke him in the morning. He dreamed of defeating Maezr.

The next day Ender went to the simulator room with his nose bandaged and his lip still puffy. Maezr was not there. Instead a captain who had worked with him before showed him an addition that had been made. The captain pointed to a tube with a loop at one end. "Radio. Primitive, I know, but it loops over your ear and we tuck the other end into your mouth with this piece here . . ."

"Watch it," Ender said as the captain pushed the end of the tube into his swollen lip.

"Sorry. Now you just talk."

"Good. Who to?"

The captain smiled. "Ask and see."

Ender shrugged and turned to the simulator. As he did a voice reverberated through his skull. It was too loud for him to understand, and he ripped the radio off his ear.

"What are you trying to do, make me deaf?"

The captain shook his head and turned a dial on a small box on a nearby table. Ender put the radio back on.

"Commander," the radio said in a familiar voice. Ender answered, "Yes."

"Instructions, sir?"

The voice was definitely familiar. "Bean?" Ender asked.

"Yes sir."

"Bean, this is Ender."

Silence. And then a burst of laughter from the other side. Then six or

seven more voices laughing, and Ender waited for silence to return. When it did, he asked, "Who else?" A few voices spoke at once, but Bean drowned them out. "Me, I'm Bean, and Peder, Wins, Younger, Lee, and Vlad."

Ender thought for a moment. Then asked what the hell was going on. They laughed again.

"They can't break up the group," Bean said. "We were commanders for maybe two weeks, and here we are at Command School, training with the simulator, and all of a sudden they told us we were going to form a fleet with a new commander. And that's you."

Ender smiled. "Are you boys any good?"

"If we aren't, you'll let us know."

Ender chuckled a little. "Might work out. A fleet."

For the next ten days Ender trained his toon leaders until they could maneuver their ships like precision dancers. It was like being back in the battleroom again, except that Ender could always see everything, and could speak to his toon leaders and change their orders at any time.

One day as Ender sat down at the control board and switched on the simulator, harsh green lights appeared in the space—the enemy.

"This is it," Ender said. "X, Y, bullet, C, D, reserve screen, E, south loop, Bean, angle north."

The enemy was grouped in a globe, and outnumbered Ender two to one. Half of Ender's force was grouped in

a tight, bulletlike formation, with the rest in a flat circular screen—except for a tiny force under Bean that moved off the simulator, heading behind the enemy's formation. Ender quickly learned the enemy's strategy: whenever Ender's bullet formation came close, the enemy would give way, hoping to draw Ender inside the globe where he would be surrounded. So Ender obligingly fell into the trap, bringing his bullet to the center of the globe.

The enemy began to contract slowly, not wanting to come within range until all their weapons could be brought to bear at once. Then Ender began to work in earnest. His reserve screen approached the outside of the globe, and the enemy began to concentrate his forces there. Then Bean's force appeared on the opposite side, and the enemy again deployed ships on that side.

Which left most of the globe only thinly defended. Ender's bullet attacked, and since at the point of attack it outnumbered the enemy overwhelmingly, he tore a hole in the formation. The enemy reacted to try to plug the gap, but in the confusion the reserve force and Bean's small force attacked simultaneously, while the bullet moved to another part of the globe. In a few more minutes the formation was shattered, most of the enemy ships destroyed, and the few survivors rushing away as fast as they could go.

Ender switched the simulator off. All the lights faded. Maezr was stand-

ing beside Ender, his hands in his pockets, his body tense. Ender looked up at him.

"I thought you said the enemy would be smart," Ender said.

Maezr's face remained expressionless. "What did you learn?"

"I learned that a sphere only works if your enemy's a fool. He had his forces so spread out that I outnumbered him whenever I engaged him."

"And?"

"And," Ender said, "You can't stay committed to one pattern. It makes you too easy to predict."

"Is that all?" Maezr asked quietly.

Ender took off his radio. "The enemy could have defeated me by breaking the sphere earlier."

Maezr nodded. "You had an unfair advantage."

Ender looked up at him coldly. "I was outnumbered two to one."

Maezr shook his head. "You have the ansible. The enemy doesn't. We include that in the mock battles. Their messages travel at the speed of light."

Ender glanced toward the simulator. "Is there enough space to make a difference?"

"Don't you know?" Maezr asked. "None of the ships was ever closer than thirty thousand kilometers to another."

Ender tried to figure the size of the enemy's sphere. Astronomy was beyond him. But now his curiosity was stirred.

"What kind of weapons are on those ships? To be able to strike

so fast and so far apart?"

Maezr shook his head. "The science is too much for you. You'd have to study many more years than you've lived to understand even the basics. All you need to know is that the weapons work."

"Why do we have to come so close to be in range?"

"The ships are all protected by force fields. A certain distance away the weapons are weaker, and can't get through. Closer in the weapons are stronger than the shields. But the computers take care of all that. They're constantly firing in any direction that won't hurt one of our ships. The computers pick targets, aim, they do all the detail work. You just tell them when and get them in a position to win. All right?"

"No." Ender twisted the tube of the radio around his fingers. "I have to know how the weapons work."

"I told you, it would take—"

"I can't command a fleet—not even on the simulator—unless I know." Ender waited a moment, then added, "Just the rough idea."

Maezr stood up and walked a few steps away. "All right, Ender. It won't make any sense, but I'll try. As simply as I can." He shoved his hands into his pockets. "It's this way, Ender. Everything is made up of atoms, little particles so small you can't see them with your eyes. These atoms, there are only a few different types, and they're all made up of even smaller particles that are pretty much the same. These atoms can be broken, so that they stop

being atoms. So that this metal doesn't hold together anymore. Or the plastic floor. Or your body. Or even the air. They just seem to disappear, if you break the atoms. All that's left is the pieces. And they fly around and break more atoms. The weapons on the ships set up an area where it's impossible for atoms of anything to stay together. They all break down. So things in that area—they disappear."

Ender nodded. "You're right, I don't understand it. Can it be blocked?"

"No. But it gets wider and weaker the farther it goes from the ship, so that after a while a force field will block it. Okay? And to make it strong at all, it has to be focused, so that a ship can only fire effectively in maybe three or four directions at once."

Ender nodded again. Maezr wondered if the boy really understood it at all.

"If the pieces of the broken atoms go breaking more atoms, why doesn't it just make everything disappear?"

"Space. Those thousands of kilometers between the ships, they're empty. Almost no atoms. The pieces don't hit anything, and when they finally do hit something, they're so spread out they can't do any harm." Maezr cocked his head quizzically. "Anything else . . . ?"

Ender nodded. "Do the weapons on the ships—do they work against anything besides ships?"

Maezr moved in close to Ender and said firmly, "We only use them

against ships. Never anything else. If we used them against anything else, the enemy would use them against us. Got it?"

Maezr walked away, and was nearly out the door when Ender called to him.

"I don't know your name yet," Ender said blandly.

"Maezr Rackham."

"Maezr Rackham," Ender said, "I defeated you."

Maezr laughed.

"Ender, you weren't fighting me today," he said. "You were fighting the stupidest computer in the Command School, set on a ten-year-old program. You don't think I'd use a sphere, do you?" He shook his head. "Ender, my dear little fellow, when you fight me you'll know it. Because you'll lose." And Maezr left the room.

Ender still practiced ten hours a day with his toon leaders. He never saw them, though, only heard their voices on the radio. Battles came every two or three days. The enemy had something new every time, something harder—but Ender coped with it. And won every time. And after every battle Maezr would point out mistakes and show Ender had really lost. Maezr only let Ender finish so that he would learn to handle the end of the game.

Until finally Maezr came in and solemnly shook Ender's hand and said, "That, boy, was a good battle."

Because the praise was so long in

coming, it pleased Ender more than praise had ever pleased him before. And because it was so condescending, he resented it.

"So from now on," Maezr said, "we can give you hard ones."

From then on Ender's life was a slow nervous breakdown.

He began fighting two battles a day, with problems that steadily grew more difficult. He had been trained in nothing but the game all his life—but now the game began to consume him. He woke in the morning with new strategies for the simulator, and went fitfully to sleep at night with the mistakes of the day preying on him. Sometimes he would wake up in the middle of the night crying for a reason he didn't remember. Sometimes he woke with his knuckles bloody from biting them. But every day he went impassively to the simulator and drilled his toon leaders until the battles, and drilled his toon leaders after the battles, and endured and studied the harsh criticism that Maezr Rackham piled on him. He noted that Rackham perversely criticized him more after his hardest battles. He noted that every time he thought of a new strategy the enemy was using it within a few days. And he noted that while his fleet always stayed the same size, the enemy increased in numbers every day.

He asked his teacher.

"We are showing you what it will be like when you really command. The ratios of enemy to us."

"Why does the enemy always out-

number us in these battles?"

Maezr bowed his gray head for a moment, as if deciding whether to answer. Finally he looked up and reached out his hand and touched Ender on the shoulder. "I will tell you, even though the information is secret. You see, the enemy attacked us first. He had good reason to attack us, but that is a matter for politicians, and whether the fault was ours or his, we could not let him win. So when the enemy came to our worlds, we fought back, hard, and spent the finest of our young men in the fleets. But we won, and the enemy retreated."

Maezr smiled ruefully. "But the enemy was not through, boy. The enemy would never be through. They came again, with more numbers, and it was harder to beat them. And another generation of young men was spent. Only a few survived. So we came up with a plan—the big men came up with the plan. We knew that we had to destroy the enemy once and for all, totally, eliminate his ability to make war against us. To do that we had to go to his home worlds—his home world, really, since the enemy's empire is all tied to his capital world."

"And so?" Ender asked.

"And so we made a fleet. We made more ships than the enemy ever had. We made a hundred ships for every ship he had sent against us. And we launched them against his twenty-eight worlds. They left a hundred years ago. And they carried on them the ansible, and only a few men. So

that someday a commander could sit on a planet somewhere far from the battle and command the fleet. So that our best minds would not be destroyed by the enemy."

Ender's question had still not been answered.

"Why do they outnumber us?"

Maezr laughed. "Because it took a hundred years for our ships to get there. They've had a hundred years to prepare for us. They'd be fools, don't you think, boy, if they waited in old tugboats to defend their harbors. They have new ships, great ships, hundreds of ships. All we have is the ansible, that and the fact that they have to put a commander with every fleet, and when they lose—and they will lose—they lose one of their best minds every time."

Ender started to ask another question.

"No more, Ender Wiggin. I've told you more than you ought to know as it is."

Ender stood angrily and turned away. "I have a right to know. Do you think this can go on forever, pushing me through one school and another and never telling me what my life is for? You use me and the others as a tool, someday we'll command your ships, someday maybe we'll save your lives, but I'm not a computer, and I have to *know!*"

"Ask me a question, then, boy," Maezr said, "and if I can answer, I will."

"If you use your best minds to command the fleets, and you never

lose any, then what do you need me for? Who am I replacing, if they're all still there?"

Maezr shook his head. "I can't tell you the answer to that, Ender. Be content that we will need you, soon. It's late. Go to bed. You have a battle in the morning."

Ender walked out of the simulator room. But when Maezr left by the same door a few moments later, the boy was waiting in the hall.

"All right, boy," Maezr said impatiently, "what is it? I don't have all night and you need to sleep."

Ender stayed silent, but Maezr waited. Finally the boy asked softly, "Do they live?"

"Does who live?"

"The other commanders. The ones now. And before me."

Maezr snorted. "Live. Of course they live. He wonders if they live." Still chuckling the old man walked off down the hall. Ender stood in the corridor for a while, but at last he was tired and he went off to bed. They live, he thought. They live, but he can't tell me what happens to them.

That night Ender didn't wake up crying. But he did wake up with blood on his hands.

Months wore on with battles every day, until at last Ender settled into the routine of the destruction of himself. He slept less every night, dreamed more, and he began to have terrible pains in his stomach. They put him on a very bland diet, but soon he didn't even have an appetite for that. "Eat,"

Maezr said, and Ender would mechanically put food in his mouth. But if nobody told him to eat he didn't eat.

One day as he was drilling his toon leaders the room went black and he woke up on the floor with his face bloody where he had hit the controls.

They put him to bed then, and for three days he was very ill. He remembered seeing faces in his dreams, but they weren't real faces, and he knew it even while he thought he saw them. He thought he saw Bean, sometimes, and sometimes he thought he saw Lieutenant Anderson and Captain Graff. And then he woke up and it was only his enemy, Maezr Rackham.

"I'm awake," he said to Maezr.

"So I see," Maezr answered. "Took you long enough. You have a battle today."

So Ender got up and fought the battle and he won it. But there was no second battle that day, and they let him go to bed earlier. His hands were shaking as he undressed.

During the night he thought he felt hands touching him gently, and he dreamed he heard voices, saying, "How long can he go on?"

"Long enough."

"So soon?"

"In a few days, then he's through."

"How will he do?"

"Fine. Even today, he was better than ever."

Ender recognized the last voice as Maezr Rackham's. He resented

Rackham's intruding even in his sleep.

He woke up and fought another battle and won.

Then he went to bed.

He woke up and won again.

And the next day was his last day in Command School, though he didn't know it. He got up and went to the simulator for the battle.

Maezr was waiting for him. Ender walked slowly into the simulator room. His step was slightly shuffling, and he seemed tired and dull. Maezr frowned.

"Are you awake, boy?" If Ender had been alert, he would have noticed the concern in his teacher's voice. Instead, he simply went to the controls and sat down. Maezr spoke to him.

"Today's game needs a little explanation, Ender Wiggin. Please turn around and pay strict attention."

Ender turned around, and for the first time he noticed that there were people at the back of the room. He recognized Graff and Anderson from Battle School, and vaguely remembered a few of the men from Command School—teachers for a few hours at some time or another. But most of the people he didn't know at all.

"Who are they?"

Maezr shook his head and answered, "Observers. Every now and then we let observers come in to watch the battle. If you don't want them, we'll send them out."

Ender shrugged. Maezr began his explanation. "Today's game, boy, has a new element. We're staging this battle around a planet. This will complicate things in two ways. The planet isn't large, on the scale we're using, but the ansible can't detect anything on the other side of it—so there's a blind spot. Also, it's against the rules to use weapons against the planet itself. All right?"

"Why, don't the weapons work against planets?"

Maezr answered coldly, "There are rules of war, Ender, that apply even in training games."

Ender shook his head slowly. "Can the planet attack?"

Maezr looked nonplussed for a moment, then smiled. "I guess you'll have to find that one out, boy. And one more thing. Today, Ender, your opponent isn't the computer. I am your enemy today, and today I won't be letting you off so easily. Today is a battle to the end. And I'll use any means I can to defeat you."

Then Maezr was gone, and Ender expressionlessly led his toon leaders through maneuvers. Ender was doing well, of course, but several of the observers shook their heads, and Graff kept clasping and unclasping his hands, crossing and uncrossing his legs. Ender would be slow today, and today Ender couldn't afford to be slow.

A warning buzzer sounded, and Ender cleared the simulator board, waiting for today's game to appear. He felt muddled today, and wondered

why people were there watching. Were they going to judge him today? Decide if he was good enough for something else? For another two years of grueling training, another two years of struggling to exceed his best? Ender was twelve. He felt very old. And as he waited for the game to appear, he wished he could simply lose it, lose the battle badly and completely so that they would remove him from the program, punish him however they wanted, he didn't care, just so he could sleep.

Then the enemy formation appeared, and Ender's weariness turned to desperation.

The enemy outnumbered him a thousand to one, the simulator glowed green with them, and Ender knew that he couldn't win.

And the enemy was not stupid. There was no formation that Ender could study and attack. Instead the vast swarms of ships were constantly moving, constantly shifting from one momentary formation to another, so that a space that for one moment was empty was immediately filled with a formidable enemy force. And even though Ender's fleet was the largest he had ever had, there was no place he could deploy it where he would outnumber the enemy long enough to accomplish anything.

And behind the enemy was the planet. The planet, which Maezr had warned him about. What difference did a planet make, when Ender couldn't hope to get near it? Ender waited, waited for the flash of insight

that would tell him what to do, how to destroy the enemy. And as he waited, he heard the observers behind him begin to shift in their seats, wondering what Ender was doing, what plan he would follow. And finally it was obvious to everybody that Ender didn't know what to do, that there was nothing to do, and a few of the men at the back of the room made quiet little sounds in their throats.

Then Ender heard Bean's voice in his ear. Bean chuckled and said, "Remember, the enemy's gate is *down*." A few of the other leaders laughed, and Ender thought back to the simple games he had played and won in Battle School. They had put him against hopeless odds there, too. And he had beaten them. And he'd be damned if he'd let Maezr Rackham beat him with a cheap trick like outnumbering him a thousand to one. He had won a game in Battle School by going for something the enemy didn't expect, something against the rules—he had won by going against the enemy's gate.

And the enemy's gate was down.

Ender smiled, and realized that if he broke this rule they'd probably kick him out of school, and that way he'd win for sure: he would never have to play a game again.

He whispered into the microphone. His six commanders each took part of the fleet and launched themselves against the enemy. They pursued erratic courses, darting off in one direction and then another. The enemy immediately stopped his aimless ma-

neuvering and began to group around Ender's six fleets.

Ender took off his microphone, leaned back in his chair, and watched. The observers murmured out loud, now. Ender was doing nothing—he had thrown the game away.

But a pattern began to emerge from the quick confrontations with the enemy. Ender's six groups lost ships constantly as they brushed with each enemy force—but they never stopped for a fight, even when for a moment they could have won a small tactical victory. Instead they continued on their erratic course that led, eventually, down. Toward the enemy planet.

And because of their seemingly random course the enemy didn't realize it until the same time that the observers did. By then it was too late, just as it had been too late for William Bee to stop Ender's soldiers from activating the gate. More of Ender's ships could be hit and destroyed, so that of the six fleets only two were able to get to the planet, and those were decimated. But those tiny groups *did* get through, and they opened fire on the planet.

Ender leaned forward now, anxious to see if his guess would pay off. He half expected a buzzer to sound and the game to be stopped, because he had broken the rule. But he was betting on the accuracy of the simulator. If it could simulate a planet, it could simulate what would happen to a planet under attack.

It did.

The weapons that blew up little ships didn't blow up the entire planet at first. But they did cause terrible explosions. And on the planet there was no space to dissipate the chain reaction. On the planet the chain reaction found more and more fuel to feed it.

The planet's surface seemed to be moving back and forth, but soon the surface gave way in an immense explosion that sent light flashing in all directions. It swallowed up Ender's entire fleet. And then it reached the enemy ships.

The first simply vanished in the explosion. Then, as the explosion spread and became less bright, it was clear what happened to each ship. As the light reached them they flashed brightly for a moment and disappeared. They were all fuel for the fire of the planet.

It took more than three minutes for the explosion to reach the limits of the simulator, and by then it was much fainter. All the ships were gone, and if any had escaped before the explosion reached them, they were few and not worth worrying about. Where the planet had been there was nothing. The simulator was empty.

Ender had destroyed the enemy by sacrificing his entire fleet and breaking the rule against destroying the planet. He wasn't sure whether to feel triumphant at his victory or defiant at the rebuke he was certain would come. So instead he felt nothing. He was tired. He wanted to go to bed and sleep.

He switched off the simulator, and finally heard the noise behind him.

There were no longer two rows of dignified military observers. Instead there was chaos. Some of them were slapping each other on the back, some of them were bowed with their head in their hands, others were openly weeping. Captain Graff detached himself from the group and came to Ender. Tears streamed down his face, but he was smiling. He reached out his arms, and to Ender's surprise he embraced the boy, held him tightly, and whispered, "Thank you, thank you, thank you, Ender."

Soon all the observers were gathered around the bewildered child, thanking him and cheering him and patting him on the shoulder and shaking his hand. Ender tried to make sense of what they were saying. He had passed the test after all? Why did it matter so much to them?

Then the crowd parted and Maezr Rackham walked through. He came straight up to Ender Wiggin and held out his hand.

"You made the hard choice, boy. But heaven knows there was no other way you could have done it. Congratulations. You beat them, and it's all over."

All over. Beat them. "I beat *you*, Maezr Rackham."

Maezr laughed, a loud laugh that filled the room. "Ender Wiggin, you never played me. You never played a *game* since I was your teacher."

Ender didn't get the joke. He had played a great many games, at a

terrible cost to himself. He began to get angry.

Maezr reached out and touched his shoulder. Ender shrugged him off. Maezr then grew serious and said, "Ender Wiggin, for the last months you have been the commander of our fleets. There were no games. The battles were real. Your only enemy was *the* enemy. You won every battle. And finally today you fought them at their home world, and you destroyed their world, their fleet, you destroyed them completely, and they'll never come against us again. You did it. You."

Real. Not a game. Ender's mind was too tired to cope with it all. He walked away from Maezr, walked silently through the crowd that still whispered thanks and congratulations to the boy, walked out of the simulator room and finally arrived in his bedroom and closed the door.

He was asleep when Graff and Maezr Rackham found him. They came in quietly and roused him. He woke slowly, and when he recognized them he turned away to go back to sleep.

"Ender," Graff said. "We need to talk to you."

Ender rolled back to face them. He said nothing.

Graff smiled. "It was a shock to you yesterday, I know. But it must make you feel good to know you won the war."

Ender nodded slowly.

"Maezr Rackham here, he never played against you. He only analyzed

your battles to find out your weak spots, to help you improve. It worked, didn't it?"

Ender closed his eyes tightly. They waited. He said, "Why didn't you tell me?"

Maezr smiled. "A hundred years ago, Ender, we found out some things. That when a commander's life is in danger he becomes afraid, and fear slows down his thinking. When a commander knows that he's killing people, he becomes cautious or insane, and neither of those help him do well. And when he is mature, when he has responsibilities and an understanding of the world, he becomes cautious and sluggish and can't do his job. So we trained children, who didn't know anything but the game, and never knew when it would become real. That was the theory, and you proved that the theory worked."

Graff reached out and touched Ender's shoulder. "We launched the ships so that they would all arrive at their destination during these few months. We knew that we'd probably only have one good commander, if we were lucky. In history it's been very rare to have more than one genius in a war. So we planned on having a genius. We were gambling. And you came along and we won."

Ender opened his eyes again and they realized he was angry. "Yes, you won."

Graff and Maezr Rackham looked at each other. "He doesn't understand," Graff whispered.

"I understand," Ender said. "You

needed a weapon, and you got it, and it was me."

"That's right," Maezr answered.

"So tell me," Ender went on, "How many people lived on that planet that I destroyed."

They didn't answer him. They

waited a while in silence, and then Graff spoke. "Weapons don't need to understand what they're pointed at, Ender. We did the pointing, and so we're responsible. You just did your job."

Maezr smiled. "Of course, Ender,

Remember reading Isaac Asimov's classic *Nightfall*? Hear it done now as a full-length dramatic presentation, in this new recording. Included is a dialogue between Isaac Asimov and Ben Bova, Editor of Analog Science Fiction/Science Fact Magazine. *Nightfall* is an exclusive offer from the publishers of Analog. For your copy of this 33 1/2 LP stereo record, use the coupon below.

ANALOG RECORDS • 350 Madison Avenue • New York, N.Y. 10017
Yes, I want to enjoy NIGHTFALL by ISAAC ASIMOV. Please send me _____ records at \$6.95 each.

Name _____ (please print)
Address _____
City _____ State _____ Apt. No. _____
Please charge my American Express Bank A _____
No. _____ Exp. Date _____
Signature _____

\$ _____ is enclosed
(payable to ANALOG RECORDS)
(Add 55¢ per record to cover
postage and handling)

you'll be taken care of. The government will never forget you. You served us all very well."

Ender rolled over and faced the wall, and even though they tried to talk to him, he didn't answer them. Finally they left.

Ender lay in his bed for a long time before anyone disturbed him again. The door opened softly. Ender didn't turn to see who it was. Then a hand touched him softly.

"Ender, it's me, Bean."

Ender turned over and looked at the little boy who was standing by his bed.

"Sit down," Ender said.

Bean sat. "That last battle, Ender. I didn't know how you'd get us out of it."

Ender smiled. "I didn't. I cheated. I thought they'd kick me out."

"Can you believe it! We won the war. The whole war's over, and we thought we'd have to wait till we grew up to fight in it, and it was us fighting it all the time. I mean, Ender, we're little kids. I'm a little kid, anyway." Bean laughed and Ender smiled. Then they were silent for a little while, Bean sitting on the edge of the bed, and Ender watching him out of half-closed eyes.

Finally Bean thought of something else to say.

"What will we do now that the war's over?" he said.

Ender closed his eyes and said, "I need some sleep, Bean."

Bean got up and left and Ender slept.

Graff and Anderson walked through the gates into the park. There was a breeze, but the sun was hot on their shoulders.

"Abba Technics? In the capital?" Graff asked.

"No, in Biggock County. Training division," Anderson replied. "They think my work with children is good preparation. And you?"

Graff smiled and shook his head. "No plans. I'll be here for a few more months. Reports, winding down. I've had offers. Personnel development for DCIA, executive vice-president for U and P, but I said no. Publisher wants me to do memoirs of the war. I don't know."

They sat on a bench and watched leaves shivering in the breeze. Children on the monkey bars were laughing and yelling, but the wind and the distance swallowed their words. "Look," Graff said, pointing. A little boy jumped from the bars and ran near the bench where the two men sat. Another boy followed him, and holding his hands like a gun he made an explosive sound. The child he was shooting at didn't stop. He fired again.

"I got you! Come back here!"

The other little boy ran on out of sight.

"Don't you know when you're dead?" The boy shoved his hands in his pockets and kicked a rock back to the monkey bars. Anderson smiled and shook his head. "Kids," he said. Then he and Graff stood up and walked on out of the park. ■

Analog Science Fiction / Science Fact

NOTES TO A SCIENCE FICTION WRITER

BEN BOVA

Straight from the shoulder talk to the short story writer from the Editor of *Analog*

"... in story after story I see the same basic mistakes being made, the same fundamentals of story-telling being ignored . . . simply because the writer has forgotten—or never knew—the basic principles of story-telling."

Ben Bova discusses vital aspects of the science fiction short story—character—background—conflict—plot—and more!

CONDÉ NAST BOOKS

P. O. Box 3308,
Grand Central Station
New York, New York 10017

YES, send me NOTES TO A SCIENCE FICTION WRITER for only \$6.95 (plus 45¢ for postage and handling) I enclose check or money order for \$7.40.

If for any reason I am not delighted, I may return the book within 10 days and my money will be refunded at once.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Enclosed is my: Check

Money Order for \$ _____

Please charge my:

American Express

Bank-Americard

Card Number: _____

Expires: _____ (date)

Signature: _____