

## Chapter Eight: How Far Did We Get

### A. “I am the Israeli Nation in Manifold Ways.”

Israeli political life remained outside of Hadassim’s realm. The main vehicles of political indoctrination, the youth movements, were excluded from our village, and we were thus spared the sort of brainwashing that many in our generation were subjected to.

This ideological mechanism emanated from the survival motivations of our politicians, but in truth it serves as an entropic-degenerative fuel for any political system. It worked wonders for the Zionist movement, beginning with the second wave of immigration at the turn of the 20<sup>th</sup> century, but in the long term it distorted our culture and political habits.

Interestingly, many politicians came to admire the Hadassim miracle; they didn’t trouble us with talk of political vision, which they themselves never took seriously. Most of the students at Hadassim weren’t interested in politics anyway. Our teachers mainly belonged to the central political movement – MAPAI – but the extent of their involvement consisted in voting. This, too, was an expression of the degenerative process of our political culture.



#### Shevach Weiss

thought of intellectuals as occupying the supreme sphere of activity; but from the moment I finished my degree, becoming an associate professor at the young age of 39, my attention turned to politics. So in the end I achieved both my ambitions.”

Shevach Weiss was the exception. He was a political animal of the intellectual-ideological type. But Shevach came to politics not through a youth movement, like his idols Yigal Alon and Yitzhak Rabin, but through his Platonic tendencies: the philosophical commitment to an ideal state. As he put it: “I was a politician from age zero, and my two dreams were: to be a legislator, even the Knesset Speaker, and to be college professor. From a very young age, I

Shevach, the political science professor, became the most prominent parliamentarian in Israel. His course reached all the way to the summit: he was Knesset speaker during a crucial and difficult period – the Oslo Accords in 1993, Oslo 2 in 1995, and during the aftermath of Rabin’s assassination. Shevach had loved Rabin to the point of veneration, and the two were also close personal friends. Rabin was something Shevach could never be – the ultimate Sabra. As far as Shevach was concerned, Rabin’s assassination represented the end of the Sabra existence he himself had strived for, and a regression back to the Diaspora existence he had fought to leave behind. Paradoxically, the assassination caused Shevach to recoil from the Sabra essence, and he eventually returned to Poland.

Shevach was with Rabin on the night of the assassination, standing next to him on the platform while they sang. He was fifteen meters behind him when Rabin was shot. He continues to experience that trauma on a daily basis: the Holocaust and the assassination are fused into one event in his consciousness. One event in particular – Bella’s murder when he was only six years old – correlates for him with the loss of Rabin, adding up to a meaningful sum.

These experiences shape his world today, they constitute his primarily interpretative lens – and he just isn’t tough enough to let go. Shevach had once hoped that Bella’s murder signified a one-time event, that he would never again be consigned to a hole in the ground. The assassination of Rabin returned him to it. Now there was no escape, no exist – not after his beloved wife, Esther, had passed from the world in 2005. No, not even the bright spectacle of his grandsons could lift him up again.

We fell in love with this sensitive man all over again when we interviewed him for this book

Shevach was born (as already covered in chapter one) in Borislav, in 1935, with an inbuilt political gene: while the katyushas reigned down from above, he and his cousin were replaying the crucial battles between Germany and the Allies on a makeshift European map. The holocaust has been the central event, even the overarching theme, accompanying him to this very day. He became an avid proponent and worshipper of the Soviet Union the day he and his family were rescued by the Red Army. Worship is a virtue of exalted men. Today Shevach converses as if he were whispering songs of early life, indelibly tuned to his soul; he is at the same time a sensitive soul and a man of high intellectual energies.

Such qualities turned against him in politics – the marriage of the professor and his welcoming party of avaricious hacks couldn’t possibly last. He would never attain the *auctoritas* of national leadership he’d always dreamt of. National leaders need thick skin, lest they collapse before they even get their chance. Ultimately, as Knesset speaker, he wasn’t disciplined enough to allow his second thoughts about Oslo to slow him down; had he been firmer, the incitement against the Doves’ camp would have been mitigated and tractable, and lives could have been spared.

In Hadassim, Shevach had donned the robes of the Jacobins of the French Revolution. The ideological stream of Jacobinism reached its apotheosis in the Marxian dictatorship of the proletariat – a small vanguard with the power of legislating in everyone’s name, worthy of claiming the general will. This was the maximum rejection of democracy, as men like Stalin – whom Shevach admired at one point -- would make abundantly clear. As a teenager, Shevach was aware that German democracy had allowed the rise of Hitler, so he looked for elements of an “active democracy” which would neutralize such threats. Nevertheless, he thought men like Robespierre and the Jacobins were worthy of imitation. Maximilian Robespierre was willing to massacre his own people for the sake of brotherhood, equality and liberty, and it was his own people who murdered him when they were finally exhausted with his uncompromising policies. Shevach admired the

man's fanatical idealism even while disclaiming the results: for him, the French revolutionary was the ultimate political man of action, compelling Reason and Republicanism on the acolytes of monarchy.

Shevach hadn't yet read Karl Popper's *The Open Society and its Enemies* or Yaakov Talmon's *The Origins of Totalitarian Democracy*. He didn't know, apparently, that Robespierre was a narcissist, whose home was filled with his own portraits. Popper and Talmon traced the Jacobin foundations of our political world to Plato and Rousseau.

Through his admiration of Robespierre, Shevach revealed that his cognition was suspended on mere outcomes, failing to reach deep to the roots. Shevach wasn't a scholastic, per se, but he never reached the Straussian mindset exemplified by Camus' *The Rebel* and Descartes' way of life. As one who came so perilously close to the gas chambers, Shevach would always regard the here and now as paramount, which blinded him to the implications of Robespierre's political course. He only knew, from his youth, that Hitler and Nazism were absolute evils; whoever had eliminated these threats, therefore, were absolute paragons, deserving of unwavering loyalty. He never fully overcame this specious syllogism, even by the age of seventy-one.

Among contemporary politicians, Shevach Weiss admired Dr. Moshe Sneh above all – the leader and spokesman of Mapam, the pro-Soviet party, and a politician who was a good dose smarter than his most of his peers. The party split in 1952 when Mordechai Oren, an emissary of the *Hakibbutz Haartzi* movement, was imprisoned in Prague on charges of spying for Israel and England. These were days of unmitigated Stalinist terror, but the left-wing of Mapam – with Sneh leading the charge – continued to worship the Soviets and refused to defend Oren, thereby rupturing the party. Shevach's loyalties remained with Sneh, who formed "The Socialistic Left" and joined the Israeli communist party. The patriarch of the Israeli left then published an essay (in the communist party outlet of which he was editor, *The People's Voice*), "Conclusions about the national question in the light of Marxism-Leninism," in which he completed his ideological turn from liberal Zionism to non-Zionistic communism.<sup>1</sup> Shevach would regularly receive Sneh's propaganda memos from his brother, Aaron, and distribute them among his peers in the village. All of this happened during my first year at Hadassim. Sneh's pamphlets reeked of implausibility, as far as I was concerned.

Every mark of totalitarianism, whether it came from teachers or parents, always stirred resistance in me. Likewise, Michael Kashtan kept hinting to Shevach that he should moderate his political activity; Rachel and Jeremiah were worried that their own son, a friend of Shevach's, was being swayed by maximalist communist doctrine, and they were considering expelling Shevach from Hadassim. The school was showcasing a mock trial of Robespierre; Shevach, of course, volunteered to defend the French revolutionary. Dr. Yaakov Talmon was invited as a witness. But, Shevach now reminds us, Talmon refuted every one of his claims -- an experience which shook his political conceptions to the ground. He abandoned his Stalinist predilections and became, in his words, a social-democrat.

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<sup>1</sup> Dr. Sneh led the Jewish Center Party during the forties.

It wasn't long afterwards that Hadassim hosted the Palmach commander Yigael Alon and the poet Chaim Guri, along with a leader of the British Labor party. Shevach had wanted to be a bona fide Israeli from the day he immigrated, so he duly worshipped the venerable warriors of the Palmach. Yigal Alon was nothing less than the emblem of the Palmach, and his brief conversation with Shevach left an irrevocable mark: the young Shevach would now emulate Alon in the same manner as he once worshipped Sneh. In 1955, when he was finally old enough to vote, his loyalties were with *Ahdut Haavoda*, Alon's party.

At the end of 1954, Shevach enlisted in the army and served as a driving sergeant. He was allowed to take an evening job in order to support his family, so he became manager of a Haifa youth club and organized quiz contests all over the country. He was second only to Shmulik Rosen as a quizmaster, and first in his age group. His success and renown resulted from an encyclopedic knowledge and a phenomenal memory. As his fame grew among the young, he was eventually appointed assistant chief education officer of the Northern command, a road which led to his friendship with Rabin (then the Northern Commander). Rabin was Alon's operation officer in the War of Independence and the most senior of the Palmach officers who remained in the IDF after the war. Shevach's admiration for and connections with both Alon and Rabin would set the stage for his political career.

Shevach tells us what most impressed him about Rabin:



Pope John Paul II with Shevach Weiss at Yad Vashem

“There was a crisis in the north during Passover, in 1956, and the soldiers weren't allowed to come home. Rabin met with his deputies, Dov Shafir (the education officer sergeant), Gad Navon (Rabbi for the Northern command) and me. He wanted us to set up a cultural evening following the Seder. He spoke plainly, as if we were all equals, despite his iconic status and high position. I learned to love him from that moment on.”

Shevach resigned from the army in 1956 in order to pursue his academic career, enrolling at the political science and international relations department at the Hebrew University. He financed his studies through lectures, quizzes and publishing quiz books. In 1959 he married Esther, his girlfriend. In 1966 he finished his doctoral thesis: “Local government in Israel, its leadership and

influence on the texture of Israeli society.” He had added law to his curriculum during his final year of study, before his accident. Both he and his car were in ruins; he was unconscious for thirteen days, then in and out of consciousness for an additional eight days. All in all, his hospitalization lasted a whole year, encompassing sixteen surgeries. He was permanently handicapped.

Shevach: “I’ve lived with enduring pain for the last 39 years, always feeling a step away from death. I lived close to that abyss for a thousand days, during the Holocaust; my car accident pushed me in even deeper. I was resurrected, but just barely -- like a ghost. I came perilously close to that great beyond once again, when my plane lifted off from Ben-Gurion Airport to take me to Warsaw. The pilot declared a state of emergency after hearing that a wheel, possibly belonging to our jet, had been found on the Tel-Aviv airfield. It would have meant certain death for us to land on one wheel, so to say that we felt anxiety for the duration of the flight would be a gross understatement. I kept reflecting back on my own life: I’m not a hero, I thought; I don’t much admire heroism. Man isn’t born into the world to be a hero, but to live. We encounter circumstances that test our tolerance for fear. I only knew that I wasn’t afraid. I kept reminding myself of what was happening, that this could be the end; I tried persuading myself that I should be afraid. In the end, the plane landed near Krakow, with both its wheels. The missing wheel wasn’t ours.”

Shevach joined the faculty at Haifa University, advancing from assistant professor to dean of the political science department. He would go on to publish dozens of books and hundreds of articles. He would devote much of his attention to three topics: the operation of the Knesset, local government and the voting processes. His book on the Knesset is still the most important work in the field. He was loved by students and colleagues alike.

Shevach: “I’m not a scientist, really, though I have insight and lots of imagination; but I have not patience for exegetical analysis bedecked with volumes of footnotes. The discipline of academic life unnerved me. Some of my colleagues, like Professor Shlomo Avineri, looked down on me for making my living through quiz-books. But I wasn’t born with a silver teaspoon in my mouth. I built my house and my family and supported my parents, all with my own hands. As a quiz coordinator I could make eight times what I made as a lecturer. I’m as sensitive to criticism as the next man, but I attend to it carefully, and I adjust when it’s necessary”.

His political activity developed side by side with his academic work: he joined the Haavoda party in 1969 and was elected as a member of the Haifa municipality board. Yoseph Almogi, the unshakable leader of the Haavoda (Labor) party in Haifa, handpicked him to become mayor. All told, he gave his best efforts to the city for eleven years. After that, his lucid analysis became a staple of the country’s political journalism.

“I wrote weekly about politics and society, altogether adding up to hundreds of articles. I was one of the prominent commentators during every election. I never developed fully as an academic; I published many books and articles and chaired my department, but my

absorption in public life undermined my intellectual activity. Eventually that part of me came to a halt. Not everyone has noticed it, but I have.”

Until 1977, Shevach was closely allied with Shimon Peres, the head of his political movement. They shared a cultural affinity, as Peres was also a Polish émigré, with all the attendant Polish manners. After Begin and his party won the majority in Parliament in 1977, Labor moved to the opposition. Yigal Alon founded his own camp in the party and challenged Peres for leadership of Labor. Shevach abandoned Peres immediately and joined Alon, which elevated him from the local to the national political stage. He was forty-two years old.

“It represented my youthful ambitions. I always remembered Alon’s visit to Hadassim, when I was still a recent immigrant, a Holocaust survivor in a farm village. And along comes this man, full of energy and charm, my window into Eretz Israel and everything I wanted to belong to. Alon was the living and lively symbol of my new paradise. Alon and his men were the best, the highest.

As for me, I was the essence of the holocaust child who bonded with Israel, but who was never fully accepted by it. I wanted the life of the sun, of milk and honey, of the absence of shadow; I wanted to be good at sports, to be one with the country’s rhythms, to have that brute accent and unmannered, tough exterior. Not an easy proposition for a child whose typical profile was a casket hat, socks up to the knees, with polished Polish shoes and genteel bourgeois brains.

Yigal Alon remembered our encounter in Hadassim and my longing for integration. He could identify with my outsider status, but his best friends all belonged to the hardcore nucleus of the Palmach, like Mula Cohen from Kibbutz Alonim<sup>2</sup>. I was never part of his inner circle.”

Actually, Shevach never learned, then or now, that Yigal Alon aspired to be an intellectual. His Palmach colleagues were loyal, and loyalty is what leaders expect, but most of these faithful friends were lacking in culture. The most prominent of these was Yitzhak Rabin. Yigal Alon strove to be an intellectual like Shevach; he even had something of an inferiority complex *vis a vis* his professorial subordinate. In the final analysis, it was their mutual inferiority complexes -- Shevach the refugee and Alon the non-intellectual – that undermined any true intimacy between them. Both lost a great deal from this emotional distance. Alon would die prematurely of a stroke, on February 19<sup>th</sup> 1980. I myself was close to Alon, in my capacity as a scholar of the War of Independence, but I felt the same insuperable wall between us. The booklet published by *Kibbutz Hameuhad*, on the thirty day anniversary of his death, contains the words he spoke to me shortly before he died. He was quite frustrated and depressed at the time. My assumption is that Alon could eventually have reached the summit of his road, had he and Shevach been able to reconcile their innate differences. Shevach’s road could

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<sup>2</sup> Yigal Alon was commander of the Palmach Yiftach Brigade during the War of Independence.

similarly have been paved fully, rather than stop at Knesset Speaker. He might even have become Prime Minister at some point.

After Alon was gone, Shimon Peres retained absolute control over the party.

Shevach: “I had the feeling that the general staff of the party, through Shimon Peres, was moving in predatorily on Alon’s group, despite what appeared outwardly as friendly relations. I regarded it as unjust. So after Alon’s funeral, I paid a visit to Rabin’s office in Tel Aviv and told him: ‘Yitzhak, I intend to commit political suicide together with you.’ It was clear at the time that we stood no chance against Shimon Peres.

My close alliance with Rabin dates back to that time. I had finally acceded to the Palmach and the venerable ’48 generation; I had integrated with the ultimate sabra. Of course, when I saw that Rabin wasn’t really the ultimate sabra I came to love him even more. I remember that meeting like it was yesterday: he was smoking a cigarette, his eyes conveying a tense excitement. I was a popular figure in those days, due largely to my column in the newspapers. He was gratified that someone with my education and influence was joining him.”

Just as Shevach had failed to join the hard nucleus of Alon’s group, neither could he enter into an “I-Thou” dialogue with Rabin -- unlike Shimon Shavas, Eitan Haber and Yaakov Tzur. Having said that, we believe that Shevach lent the Rabin camp an intellectual depth without which Rabin could never have become the leader he did. Nor, without Shevach as an able deputy in the Knesset, could the late Prime-Minister have so imprinted himself on the nation’s memory.

Shevach was elected to the Knesset for the first time in 1968. He would become one of the ablest Israeli politicians during the following decade. When Rabin won the elections in 1992, Shevach was slated to become foreign minister – quite the fitting role for the eminent professor. It was Peres who assumed that office, however, due to Rabin’s tangled party obligations. Had Shevach been appointed, it’s reasonable to assume that his relationship with Rabin would have produced better results – that Oslo would, perhaps, have had fewer holes. Shevach had no intention of taking on a minor portfolio in the new cabinet, having invested too much in Israeli politics, so he assumed the mantle of Knesset speaker. Evidently he had to compete with Yossi Sarid for the appointment, but he had Rabin’s support in the end.

In August 1993, he learned about secret conversations between Israelis and Palestinians in Oslo.

“I found out about Oslo during a military literature prize ceremony held in Alon’s memory. As chairman of the committee, I was in the middle of my speech when Rabin entered the hall. I stopped to give him a warm welcome: ‘The tempest bellows in our midst [citing a famous Palmach and War of Independence song]; our prime minister is here.’ He acknowledged my hint, smiled and embraced me. I’d previously met Yair Hirshfeld and Ron Pundaki at Haifa University, and they’d never said anything to me

about their Oslo intrigues. Yossi Beilin, the deputy foreign minister, had never uttered a word about it; I'd noted his frequent absence from the Knesset and speculated that something dramatic was going on, but I hadn't the faintest idea what any of it meant. After the Oslo affair went public, after its various phases of debate in the Knesset, many harsh words had accumulated on both sides. Much of it happened on live television: the prime minister trying to address the Knesset, members of the right-wing standing up and haranguing him, infuriating him – Limor Livnat, Benni Begin, Uzi Landaw and others. I was there and saw what he was going through, but I didn't allow myself to expel them from the hall. Limor Livnat was especially shrill and indecently provocative, yet I found it hard to discipline her, not with my gentlemanly manners. I'd known her since she was a little girl accompanying her mother, the singer Shulamit Livnat, on the maiden voyage of the Israeli cruise ship 'Shalom'.

So here was the prime minister, the commander of the Harrell Brigade, along with his 70 years old defense minister, facing all sorts of -- forgive me -- completely new characters in the Knesset, most of them never having served in the military, all of them indicting him on the most sensitive point: compromising the security of Israel. This is horrendous, I thought. What he must be going through! 'Who the hell are you?' he must have been thinking to himself. 'When did you last serve? When was the last time you held a gun?' I'm sure these thoughts must have passed through his mind. These are very human feelings. But he didn't say a word. He stood in the eye of the storm. For my part, I tried calming things down as best I could. At first I intervened here and there, only to have Rabin grunt 'don't interrupt me' and put me back in my place; but after a while, when they kept shouting at him without end, he actually turned to me and yelled 'Why the hell don't you shut them up?' And all of it right there, front and center on national television -- Rabin against the state. This was the man I loved.

"It was an anxious period for me. I was considering whether I should stay on as Knesset speaker, and had I known what lay ahead I might have asked myself if I could even withstand that kind of nightmare. 'Can I stand there and just watch as they toy with democracy itself?' I would have asked.

They were systematically trampling on parliamentary principles. I tried pleading with the Knesset committee, but it was rare for me to find any support. The Knesset had always been a temple for me -- it was always *The Temple*. In retrospect, I wasn't as assertive as I should have been. I'm not sure if that would've helped; there were so many MKs filling the newspapers with their noble ideas who then turned around and behaved like hooligans within government halls. Some of these people were very civilized on the exterior; they had streams of academic laurels and wore elegant suits.

"During the first session of the 1920 Haifa Histadrut conference, a man who wasn't elected to the conference -- Yoseph Chaim Brenner -- strode in and started shouting. Yoseph Shprintzhak, the man who chaired the session, told him: 'Comrade Brenner, you don't have the right to speak here.' Brenner responded: 'But I have the right to cry!' In 1993 the politicians who opposed Oslo turned the 'right to cry' into the right to scream. They turned it into an artform.



Uri: “Shevach, during that whole period [the Oslo Accords] you did some of your own damage to the parliamentary process: you essentially purchased the voice of the Knesset and Tzomet party member, Alex Goldfarb, in exchange for a government office. Thirteen years have gone by, and yet he persists in receiving sundry offices, contrary to the wishes of those who elected him in the first place.”

Shevach: “For me, the whole battle was about one voice. At the time, I told Goldfarb, ‘You aren’t Goldfarb anymore – you’re Gold Finger.’ Between us, yes – it was an opportunistic tactic. Everything’s like that nowadays. I didn’t want his vote from any higher ethical aspect: I wanted it for the sake of the peace process.”

Uri: “What was the climax of your political life, especially as Knesset Speaker?”

“The climax was a sad day for me. It was very early in the morning, a month before the assassination, and we had just ratified Oslo 2, the Gaza evacuation agreement, following endless and intensely heated sessions. After the vote I concluded the session by denouncing the fascist block. The head of the opposition, Benyamin Netanyahu, demanded to be allowed to respond, and I made the mistake of letting him. I let this little baby have his say. Yossi Sarid, Ran Cohen and Dedi Zucker were livid, they screamed that they wouldn’t let ‘Bibi’ talk. I told them ‘Gentlemen, in spite of everything, I must allow him to respond after all that’s been said.’

“I was under no obligation to allow the opposition leader his say after my concluding remarks. It was actually a deviation from our regulations, but in spite of everything I believed Netanyahu could bring some calm to his party. They were so virulently opposed to the result of the vote. Rabin was insulted by the gesture, however; he walked out, furious, and went for a smoke. Of Netanyahu, Rabin always used to say that he was ‘a nagging inciter’.

“So I let Bibi talk; I thought he might even heal some of the bitterness; I didn’t think for a second that his speech would be so violent. Rabin was always about the small details – I never had that. That was his greatness. We were very close at the end, but my ill-fated gesture to Netanyahu was a disappointment to him. I caught him on the phone afterwards and tried to apologize: “It was a mistake...you’re the last person I wanted to hurt,’ I said.

‘Shevach, you were so wonderful the whole day, but you shouldn’t have done this,’ he answered.

I always feel such remorse for letting Bibi have his day, allowing him to continue the incitement.”

Uri: “Do you think this had anything to do with the assassination?”

“Everything had something to do with it. Much more relevant was that none of us could have guessed that the Shin Bet wouldn’t be able to stop it”.

What followed the Oslo Accord was an even bigger storm, and Shevach was right in the middle of it.

“I reached the square before Rabin. Chaim Ramon had made all the arrangements. Rabin arrived later: shaved and elegantly tailored for the appearance. He started to pace around, acting really nervous... ‘Will we have a large crowd or not?’ he kept muttering. He was always concerned about something; I don’t think I can remember seeing his face without some expression of concern. He was very human, always carrying so much on his shoulders, always worrying. If I only knew that he would be dead in three hours... The Egyptian ambassador was sitting in the front row, the Jordanian ambassador behind him in the third. ‘That’s not fair,’ Rabin said, calling for someone to put the Jordanian in the front row too.

“He kept looking around, asking ‘Where is Aviv Geffen?’ Geffen was known for his protest songs against everyone and everything, including Rabin, though he never named anyone specific. It struck the chords of one of Rabin’s complexes, the Nahalal complex, to have Aviv Geffen there with him – Aviv Geffen from Nahalal, a relative of Dayan’s! It meant something that Geffen would share a stage with him and join him to sing songs for peace. For the country, it would signify a connection with the young doves of the new generation; Rabin always bristled at the fact that Peres was the one crowned king among the youth. Hadn’t he, Rabin, led the peace process? Wasn’t it he who pressed forward to the signing of Oslo? So Geffen was indeed important for this occasion – he was the symbol of the protest generation almost to the very end, the champion of the dovish wing of Labor.

“Rabin was annoyed to see a giant Meretz [the leftwing party] balloon floating above the square, inscribed with ‘The Peace was Accelerated’ [a pun on “Meretz”]. In short, Meretz was taking credit for the peace process, a suggestion Rabin wasn’t taking too kindly. Dov Gilead from Channel 2 television came up and asked for an interview with the prime minister, and I feared that Rabin, angry as he was, would say something he might regret later on. I knew that the outcome would be more conflict, swallowing everybody up in its wake and deflecting from the significance of this momentous occasion. ‘Yitzhak, don’t get mad,’ I begged him. Luckily he only had great things to say to Dov Gilead; he spoke out against extremism and violence. This was followed by speeches and ‘The Song for Peace’. The square was filled with joyous crowds. It was clear that the event was a giant success.

“But there was a bad feeling in the air.”

“There was the attack on Rabin a few days earlier, during the inauguration of ‘Rabin Bridge’ in Kfar Shemariyahu. Part of it remained, hanging over these last few days. Rabin was still onstage well after the event was supposed to end, celebrating with the new generation of Meretz. I went up to him and said, ‘Rabin, I wanted to say goodbye – I’m leaving a little early.’ Aviv Geffen was still singing with the crowds. I said farewell to Yitzhak and Lea, and as I turned and walked away Rabin stopped me and asked me for

a light. I held my lighter to his cigarette for the last time, and stepped down from the platform. I said goodbye to Ora Namir and the Egyptian ambassador and crossed the street. A reporter for Channel 10 approached me, and I gave him a short comment before getting into my car. My phone rang just as I was about to start the engine. It was my daughter.

“Father, are you driving right now?”

“I told her I was standing.”

“Then don’t drive anywhere. I have bad news. Uri’s dead.’ Uri was a very good friend of ours; we’d just seen him that morning. He died of a stroke.

“Just then, I heard a noise and then a siren. I turned on the radio. Rabin had been shot, 15 meters away from me.

“I’m a child of the Diaspora. It was always important for me that Israel be pure. We don’t have another country to live in. I had beautified this place in my own mind – this society and nation of mine – and I had done it from a sense of longing, sprung from disaster. In that way, I represent the nation of Israel in manifold ways. I belonged to the community that had endured the unimaginable, simply because we were who we were. So I chose to immigrate to my home – I don’t deserve a medal for that. There had always been other options; part of my family moved to Canada, including some of the cousins who hid with me under that kindergarten in Borislav. Their assessments of the Holocaust were quite different from my own. But when Rabin was assassinated, and throughout the preceding year of daily incitement, my bond with the nation fell into crisis. The same internal conflict persists to this day. I began to feel that I didn’t belong with my adopted nation.”

After having reached the summit of the Knesset, Shevach accepted the role of Polish Ambassador. Things had now come full circle: The boy who once hid underneath a kindergarten for a thousand days was returning to his erstwhile home, a country from which he had once gladly escaped.

“The foreign office offered me an ambassadorship in Moscow; Ehud Barak offered me one in Berlin. I told him, ‘If you’re interested in expelling me from the country, at least send me to Poland.

“The Polish foreign office has since voted me the best foreign ambassador of all time. I received the emblem of the great eagle from the President himself, an honor only bestowed on two other non-citizens. I’m friendly with all the top people there. When my term ended, I founded the Israeli studies department in Warsaw University, where I lecture twice monthly in front of thousands. I have my own column in the most important newspaper; when they had their anniversary, two people were invited to speak – Lech Walesa and me. My reputation in Poland stems from two factors: (A) I was already a star in Israel (you don’t become Knesset Speaker by accident). (B) The Poles

are fascinated with the Jews. They consider Golda Meir, Ben Gurion and Dayan as fellow Poles, and they're quite proud that Israel was founded by such people. (C) I'm fluent in Polish. (D) I've published four bestsellers there. And the fifth one is on the way.

“And still, I don't feel happy. I miss my wife, Esther, who lay dying in my arms for seven hours. I tried to keep the angel of death away, but I failed. Now I'm alone. I don't think I can recover. In some sense I never got out of the hole; my life was a sequence of disasters. Losing my wife was the worst one.”

## **B. The Old Separation Between the Sciences and the Humanities**

Our colleague Micha Spira is one of great products of Hadassim's dialogic concept of education. He embodies the highest fusion of Yehoshua Margolin's dialogue of nature, Moshe Schwabe's dialogue of criticism and Martin Buber's dialogue of intuition – a fusion which ultimately produced one of the world's leading brain scientists.

Micha Spira is a creative, dynamic individualist and anti-scholasticist in his life and work. It's no wonder that he's something of an elitist, that he considers all of us “nose drippers.” He is quite correct on that score; had he wasted his time in vain chatter with us he would never have gotten where he is today. His chosen field is the research of brain and mind processes. He has rebelled against the common division in the current academic paradigm, as this excerpt from a recent newspaper interview makes clear:

“Most of our intellectuals are castrated, simply by dint of their ignorance of contemporary science. The world they live in is gone. They don't even know how electricity works. Everything today is interdisciplinary and multi-disciplinary; the old separation between science and the humanities is no more.”

We met with Spira in Rupin College, in 2005, shortly before we set out to write this book. As would be expected, he treated me much like a ‘castrated intellectual,’ lecturing to me from on high about the absolute distinction, from the point of view of survival, between the organic and inorganic realms. I reminded him of the “inorganic” force of inertia, discovered by Newton in the 17<sup>th</sup> century, given new meaning by quantum theory. He granted me the privilege of a reflective gaze before returning to his engagements. By the time we met in his Jerusalem laboratory half a year later, he was already looking upon my insights with greater respect.

Micha is the current director of the Smith Laboratory for Collaborative Research in Psychobiology Life Sciences Institute. His inter-disciplinary and multi-disciplinary dialogic approach is evident in the manner in which he introduces the various faculties in his institute: Mathematics, Physics, Chemistry, Computer Science, Life Sciences, Global Studies and Applied Science.

“Understanding complex psychobiological processes requires a multi-disciplinary approach, extending from molecular processes in a single neuron, through biochemical

and physiological processes in a cell or an entire tissue area, all the way to cognitive and behavioral processes in the healthy or pathological brain.

“Integrating these approaches is both difficult and rare. Basic or applied research performed in a specialized laboratory usually focuses on only one level. The Smith Laboratory encourages scientific exchange and collaboration between investigators from different fields -- experts in different methods and approaches.”

Spira is willing to bear the burden of his intellectual ambitions; his road has been as difficult and rare as one can expect of a true scientist. When I asked him whether he would win the Israel Prize, he responded that “If the Israel Prize was my intention I would have molded my career as a scholastic would, by knocking on one little space in the wall. But the education in Hadassim oriented us differently.”

As soon as he said that, I knew that we were from the same village.

We’ve already described Micha’s tenure in Hadassim and his coming of age, the process by which his intellectual identity began to crystallize. Through his artistic dialogue with Greta Salus, his intellectual dialogue with Arie Mar and his naturalist dialogue with Avinoam Kaplan, Micha realized his cognitive vitality. He discovered the love and meaning of biology through his graduation thesis on the Tabor-Oak. His decision to pursue a doctorate in neurobiology was a direct outcome of this influence. He enrolled in an accelerated study group at the Hebrew University, a riveting intellectual challenge, and he had already completed graduate degrees in chemistry and biology, and even taking great strides in his doctoral course, by the time he entered the academic reserve units of the army. This was more proof of the Hadassim Effect – and of the Lamed Hei effect which had initially drawn him to Professor Karl Reich. Micha became the protégé of the Zoology and physiology professor who had lost his only son in the Lamed Hei battle.

“Reich picked me out from the new crop of students and made me his assistant during my sophomore year. Decades later, I found out that the source of this relationship was an earlier encounter during the Lamed Hei ceremony organized by Uri Milstein. Apparently I reminded the professor of his lost son. Reich was an exceptional, fascinating man. I entered my doctoral program after resigning from the military, and my ideas crystallized from a book I was reading at the time, written by Professor Rader of Boston University, which integrated neurobiology with a promising philosophic conception. I tried persuading Professor Felix Bergman, a leading Pharmacologist from the medical school, to be my advisor, but he refused. His excuse was that the subject I proposed wasn’t part of his course schedule. So turned to Professor Rader himself, and soon enough I was accepted at Boston University and began making travel arrangements. When I told Reich about this, he immediately called Professor Bergman and told him: ‘Don’t let Micha go – you have to take him on as a student.’ And so it was.

“I chose to focus on cockroaches, as I assumed it would be easier to get the right materials, and since their nervous systems were fairly well understood, having been fixed in their early evolutionary stages. But I realized soon enough that it wasn’t so simple.

Cockroaches were surprisingly difficult to find; I had to look for them in the sewage close to the laboratory on Jaffa St. When I tried getting into the sewer a policeman appeared and tried to arrest me. He suspected me of hiding explosives.



**Erwin Neher and Micha Spira**

“In the end I learned to breed my own cockroaches from Professor Mendelssohn, an assistant to Margolin, a friend of Kaplan’s. My study of the nervous system of this wily insect became the template for my future research.

“I soon discovered that extensions of neurons function not only as transmitters but also as codification processors of electrical signals (action potentials). One of my important

findings concerned the role of synapses. Synapses allow for synchronization of nerve groups. I found that there was a way of switching the timing of these synapses to allow for groups of cells to act independently, not synchronically. It’s much like a choir where everyone sings in unison until the conductor directs them to divide polyphonically, in contrary motion.

“Where others could see, I could both see and understand. This was Hadassim’s legacy: not to recite but to interact creatively. This is a principle I’ve internalized in every endeavor – not to repeat what others say, but to create fearlessly.

Micha Spira returned to the Hebrew University after finishing his post-doctoral tenure at the Einstein Medical School in New York, becoming an associate professor at the age of 37. His focus today is mainly on molecular and cell mechanisms involved in the healing of nerve cells. The implications of such research, should it continue successfully, are colossal: the regeneration of components of the central nervous system.

“I study the means by which nerve cells are able to regenerate after suffering damage on the basic, not the clinical, level. In contrast to other body tissues, where a wound stimulates cell division, nerve cells lose the ability to divide. The only way to correct damage in the nervous system, therefore, is regeneration of the damaged extensions. The problem lies in bringing all the necessary components together to the precise location of the damage, in using the regenerative material and navigating the regenerated nerve well enough to orient the regenerated extension with the old cell. The electro-physiological methods I used in the past weren’t enough for this. I realized that I had to study molecular biology and study the most advanced simulation methods in order to fully observe molecular processes in the cell. And that’s what I did.”

Micha’s creative-dynamic virtue, much like the virtue of the Greek Agon actor who knew there was no lull in the race against the gods, comes alive when he discusses the feedback element inherent in the awake state to which he was exposed in the course of his academic career. “Your mind functions constantly under examination, when it’s exposed

to criticism. It's a pleasure. The sensation of constant 'incoming bombardment' keeps you alert, forcing you to think constantly."

Another research project of Micha's, building on his previous work, has to do with neuron-electric hybrids, hybrids of nerve cells and transistors.

"This is something I started eight years ago. I lead a team of interdisciplinary scientists combining physics, electronics and chemistry. We've received a grant of a million Euros from the European Union which we've used to build special transistors, and so far we've been able to grow nerve cells that communicate with those transistors via electric signals. We're trying to build a communication interface between animal life – the product of evolution -- and the world of man-made silicon. The futuristic implications of this have already been spelled out in the science fiction literature – the bionic man, a man whose organic mechanisms are governed by computer systems."

For years, Micha combined teaching at the Hebrew University and The New York Einstein Medical School, coordinating his research with both institutions. Since most of his work at the Einstein medical school took place in a marine laboratory, a locus for pilgrimages of bio-physicists from all over the world, the high education council turned to Micha with a request to develop the Eilat marine laboratory into an inter-academic institute. Reaching back to his roots in the Hadassim spirit of tolerance, mutual understanding and dialogue, Micha reached out to all the Israeli universities, initiating a regional research program in the Red sea. He included Palestinians, Jordanians and Egyptians in the program.

"I recruited Erwin Neher, a German Nobel laureate in biophysics and a research colleague of mine. The German government was persuaded to invest 12 million marks in the project when they learned of his involvement. Next I turned to the Israeli Ministry of Foreign Affairs for political contacts. Their response was: 'Don't make us laugh. There's no way you'll be able to recruit any Egyptians.' So I traveled to Egypt with another friend of mine, Avi Barnes, and met with Dr. Hussein Kamal Badawi, head of Egypt's Marine and Fisheries Institute.



**Dr. Hussein Kamal Badawi  
and Micha Spira**

"He kept us waiting outside his office for two hours, then gestured for us to sit on these lowly stools while he lounged comfortably on a high leather chair behind his mountain of a desk. I'm not even sure if he could see my bald head over that desk.

"I introduced him to my plan, offering him full collaboration. I said, 'Ecology doesn't recognize political boundaries; Israel, Egypt and Jordan have common interests in the Akaba bay. Let's take care of it together. I'll take care of the funding.

"We discussed the proposal for three hours, and he said he would think about it. We went back to our

hotel to wait for his answer, enjoying the nightclub in the meantime. When we tried to check out in the morning, we discovered that our bill had already been taken care of by our security escort. They'd apparently been assigned to us without our ever taking notice.

“We also discovered that a lawyer, Al Biari, was already expecting us in the hotel lobby. We prepared a contract, and by afternoon everything was signed. Al Biari told us about his youthful affair with a Jewish woman, about how they'd been compelled to separate when the Jews were expelled from Egypt. Now he was beginning to revisit some of those memories, and he even asked us to help locate this woman. We were happy to do our part, and happier still when they were able to meet again after so many years.

Against all our expectations, our relationship with the Egyptians only grew stronger and triggered hopes of kindling similar bonds with Jordanian and Palestinian scientists. The Palestinians had their own department of marine research in Al Quds University in Jerusalem; many of them had finished their doctoral studies in Bar Ilan University, while others had studied in Germany. We were successful in establishing a collaborative research program, but our funding and relations grew intractable with the eruption of the first Intifada, and we haven't been able to reestablish anything since.

Micha is still trying to renew that cooperation, this time for a project in the Mediterranean centered on an international marine school in Michmoret. He believes it can contribute to the advancement of peace.

The international and inter-academic scale of these projects, in the face of relentless entropy and bureaucratic group-think on the part of universities and states, has given Micha great pleasure. He's very conscious of the fact that his ability to diagnose new contexts and integrations was inherited from Hadassim. He believes with us that the legacy of education bequeathed by Rachel and Jeremiah, with its roots in Schwabe, Buber and Margolin, can eventually transform our world for the better. In supporting the Hadassim Project initiated by this book's authors, Micha stands with the lawyers Assa Eliav and Nahum Feinberg, the chemical engineer Gideon Lavi, and Alex Orly, the president of the Holocaust Survivor Children's Association *Child Survivors, Hidden Children*, all of whom have joined the project. We believe that together we can achieve in the educational realm what Micha was able to achieve in brain research.

### C. The Survival Principle

The resistance I met among the Hadassim faculty (with the exception of Arie Mar) to my research, along with the prevailing attitude of indifference among fellow students to my ideas, led me to ask some serious questions. Some fundamental principle had to underlie this rejection, I believed, and I looked forward even then to the day when I would uncover it. It was ten years later when I published my first war research, “*The Paratrooper Wars*,” in which I exposed the activities of Arik Sharon's 101 Unit and the revolution in the IDF effected thereby. I immediately became a star in the Israeli conversation: the Haaretz weekly editorial published chapters from the book; my ideas



were being debated on the radio. And, despite my very young age, I was being invited to present my findings on interviews, lectures, discussions and conferences.



**Uri Milstein**

The paratroopers, on the other hand, were incensed about my work. Their most treasured hero paid a visit to my house and threatened to kill me, in the presence of my wife and her parents, if I published my book. My thorough delving into the War of Independence began in the 70's, culminating in four full volumes (out of twelve), carried by one of the most prestigious publishing houses in the country, during the 80's and 90's. I laid bare the true events surrounding the genesis of the state, and Professor Benni Morris responded with a swift rejoinder in the *Jerusalem Post*: "The War of Independence's

research till Uri Milstein is prehistory and Uri Milstein is history". Alan Sacks, the Philadelphia judge, volunteered to translate my four volumes to English without compensation, and *University Press of America* printed it. In Israel, however, I would be ignored by the media and excommunicated by the academic establishment. They refused to let me teach and carry on my research under their banner, and I was blacklisted at conferences devoted to the War of Independence. But my work continued apace: my two books on Yitzhak Rabin – which proved that the great commander known as "Mr. Security" was undeserving of his reputation -- were published at the turn of the new century. These new contributions were quickly added to the *Index Librorum Prohibitorum*, rendering me untouchable in the eyes of the establishment and most of the country.

Again and again I asked myself: why do the Israelis, among others, refuse to hear the truth about their wars and commanders? Plato gave his own explanation for this, in his famous allegory of the cave, but his is too analogical an explanation. I was looking for a more digital one. Finally, through dialogue with my closest friends, I began to formulate what I called the Survival Principle, laid out in full in my book *The General Security Theory*. This principle offered a new paradigm for existence itself. The crucial importance of my insight was explicated by Dr. Moshe Rosenblatt, a philosopher and surgical physician, during an internet discussion in April 2006:

"The survival principle isn't just an idea. It describes a real and destructive force, a force that allows our destruction of the environment for the sake of personal survival. Survival is the most fundamental principle guiding our each and every step. An intellectual analysis of this sort, whenever extended to any realm of human action, will always demand a utopian state that welcomes the full disclosure of truth, even the harshest of truths. If we actually aspire to bring this idea into reality, or at least to approximate it, we

must first understand this principle – from every angle. It’s as simple as learning the alphabet before proceeding on to a theoretical tract in Hebrew.

“We live in a state of omnipresent existential danger, not because our Arab enemies want to annihilate us, but mainly because the IDF – with all its soldiers and officers – remain ignorant of the survival principle, and in their ignorance they haven’t built a military model worthy of the challenge posed by the principle’s destructive implications. As a result, our defense establishment will collapse under the weight of its mistakes, failures, lies and myths.

“The IDF is in a state of collapse, one inherited long ago from the circumstances of its founding. In my estimate, the critical mass will occur sometime during the middle of the present century, leading to the annihilation of the Jewish State. And I’m an optimist. Imagine what I would say if I were a pessimist...”

During the 90’s I published another book, *An End to Life*, where I claimed that if we fail to neutralize the survival principal, it will ultimately mean the end of human life -- of all life -- not just the end of our own state. As I’ve said, this argument came not as an analogical meditation; it proceeded in the form of digital science, resting on a notion of the fiber of the universe. I was keeping true to Micha Spira’s demand that we break the wall between science and the humanities.

Here I offer two quotations, three hundred years apart: “Everything aspires to preserve its being, to be nothing but its essence in actuality.” Baruch Spinoza said that.<sup>3</sup> Then there’s this: “At the foundation of all existing things resides such a simple, beautiful<sup>4</sup> and persuasive idea, that when we finally grasp it, whether in a decade, a hundred years or even a thousand years from now, we will say: ‘How could we possibly have thought otherwise? How could we be so foolish for so long?’” That was John Wheeler<sup>5</sup>.

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<sup>3</sup> Ethics Part 3 sentence 7. In the introduction to the Hebrew translation, Yirmiahu Yovel claims that the Ethics “established Modernism in philosophy.”

<sup>4</sup> The demand for beauty in the structure of the universe is common to many thinkers. Copernicus criticized Ptolemy’s approach in his book “About the Heavenly Spheres” from the esthetic assumption that God had created flawless heavenly bodies. Kepler used the same precise claim in his book “The Universe’s Secret”. In 1956 Paul Dirac, the Nobel Laureate physicist said: “A physical law must have the virtue of mathematical beauty”. (Cited in Yan Stewart and Martin Globitzki’s book “Terrible Symmetry - Is God a Geometrian?” Zmora, Bitan publishers, 2001).

<sup>5</sup> An American physicist. In the late thirties, Wheeler (together with his teacher, the Danish physicist Nils Bohr) developed a theory on splitting the atom, which was used to develop the atom bomb. He belonged to a group of physicists who researched the phenomenon of gravitational collapse. Wheeler gave it its popular name “Black Hole”.

## Reality has Purpose

Observation<sup>6</sup> of fundamental reality isn't limited to matter – as defined by conventional science – or to fundamental particles; nor is it limited to fundamental forces in four-dimensional space-time, or even to mechanistic explanations in the Cartesian-Newtonian mold.<sup>7</sup> These have been the paradigms of science for the last 300 years, and not only in physics.

What we're talking about is the negation of mind-body dualism, the physicalization of consciousness, something even Newton and Einstein shied away from – they wouldn't dare to trespass on God's dominion. Given that consciousness is purposive, and given that the observer and his consciousness, with all its interactions, become a factor in the observational field of the universe, we aim to return teleological explanations, which Descartes banished from the conversation in the 17<sup>th</sup> century (via his model of the mechanical clock), to their proper place in scientific discourse.<sup>8</sup> If matter and its force fields lack purpose, then consciousness has it in spades: it requires purpose – modes, tactics and strategies -- in order to ensure the survival of the body in competition with others. Further: if consciousness, consisting of information fibers, is itself a dimension of reality, then reality has purpose – and not only biological purpose.

Given all the above, I will formulate a hypothesis about the fundamental fiber of the universe – the solid base of the recipe of the Universe.<sup>9</sup> We start with the fact that observation per se, with its teleological nature, is part of the universe's interaction system.

The invitation to look upon consciousness as active, not merely a passive participant in the world, is nothing new. It is implanted in our infrastructure as cognitive beings, in something that appears anti-teleological<sup>10</sup>. Much of this is part of our Western orientation. But a consciousness aware of reality and of itself, is implicitly also aware of reality's teleological constituents.

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<sup>6</sup> Observation -- in the classical Greek meaning of the term, means theory. Therefore, to observe is to think, to grasp and develop knowledge.

<sup>7</sup> Mechanistic explanations describe and analyze reality through quantitative methods. They relate to this reality as to a machine with clear components, mechanical mechanisms and a structure which can be described mathematically, and they study the interaction between forces and matter.

<sup>8</sup> There were still scientists in the 17<sup>th</sup> century who did not abandon the teleological explanation. The most prominent among them were the British physicist Robert Boil (1627-1691) and the mathematician and philosopher Wilhelm Gottfried Leibnitz (1716-1846), who developed differential and integral mathematics in parallel with Newton.

<sup>9</sup> Similar to the hypothesis that observation stimulates quantum processes, but here applied to the quantum universe's superpositions, creating the classical universe.

<sup>10</sup> Teleology, or purpose, is one of Aristotle's four causes. "The table has the purpose of eating and writing."

## The Genealogy of Observation –

Judaism, the fountain of our Western religious narrative, is founded on the assumption of a super-consciousness<sup>11</sup> existing in space, giving birth and order to the world.<sup>12</sup> In the 6<sup>th</sup> century BC, the Greeks carved the postulate of consciousness on the entrance gate to the temple of Apollo, god of reason and science: “Know thyself.” Plato – the founding ancestor of Western culture – adopted the primacy of consciousness, giving it a rationalistic interpretation, determining that its highest expression is mathematics (especially geometry). Thus Plato had given full force to the Pythagorean conception that reality is number, where number = idea = consciousness = concept.<sup>13</sup> For the last 2400 years, this notion has provided tremendous impulse for the development of Western science, whereas no mathematics has yet to emerge that could be applied to non-mechanistic and teleological phenomena. Plato limited consciousness’ active function to the creation of mathematical entities and logical models, which he called forms<sup>14</sup> -- a limitation imposed on science up to the present time.

Plato’s pupil, Aristotle, defined an empirical paradigm to reestablish experience as the basis of scientific investigation. Plato’s mathematical-idealistic paradigm had undervalued the world of experience and empirical inquiry. But these two counterpoised models were merged in one via Archimedes, who added the method of experimentation to Aristotle’s method of experience.<sup>15</sup> This marriage of paradigms was successful enough to result in new technologies, including military technologies -- the engine of further technological development (in our civilization) *vis a vis* agriculture and urban settlement. The military was a leading engine in the development of technologies because it combines two fundamental principles of reality – cooperation and competition – both of which lead inexorably to the survival principle.

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<sup>11</sup> “God’s spirit”, Genesis A, b.

<sup>12</sup> Newton and his generation believed in God – a belief which supplied them with teleology. Newton himself was engaged in theology not less intensively than in physics. The 20<sup>th</sup> century’s greatest physicist, Albert Einstein, talked repeatedly about the connection between God and the laws of physics. An example: “I want to know how God created. I am not interested in this phenomenon or another. I want to reach his consciousness’ depth. All the rest are details”. (Cited in: Mitchu Kaku, “*About a Space*” Hed Artzi, 1998).

<sup>13</sup> 2400 years after Plato, Albert Einstein acknowledged the connection between physics and mathematics when he remarked that pure mathematics might lead to the solution of physics’ enigmas: “I am convinced that the pure mathematical construction enables us to discover the concepts and the laws connecting them, and thus is given to us the key to the understanding of nature... In a certain sense, therefore, I accept that it is true that pure thought can embrace reality, as the ancients dreamt”. (Cited in Kaku, *About a Space*” Hed Artzi, 1998).

<sup>14</sup> To be more precise, consciousness is mentioned in *Ideas*, but his theory of recollection was quickly abandoned in favor of the view that consciousness forms ideas.

<sup>15</sup> Archimedes formulated the basic law of hydrostatics: On a body in liquid an elevation force is acted upon, which equals the weight of the liquid rejected by the body.

With Archimedes, the short period of autonomous philosophic investigation which characterized the Greek Poleis gave way to the era of collective and coordinated study, especially for military needs. The result: the establishment controlled knowledge (continuing in the tradition of the Babylonian and Egyptian empires), aiming solely at its own self-preservation. Observation was nationalized and directed for combat purposes. The scientific era had begun, giving theoretical depth to technological means, but the establishment had an inherent interest in forbidding the study of consciousness, since such study could easily expose its own failures.

The assassination of Archimedes by a Roman soldier symbolizes the conquest of the West by the militaristic-imperialistic paradigm. In the (militaristic) era of *Pax Romana* that followed, intellectual resources were dedicated to the cultivation of military power. Roman efficiency pushed aside the leisurely study of the Greek academies. The Romans had no intention of destroying science, but they harnessed it to their own imperialistic designs. Thus began the era of applied science, the secret ingredient of Western power, lasting to the middle of the present decade. Like Hobbes' Leviathan, the militaristic paradigm has reigned supreme and swallowed up everything in its wake. As this militarism moves closer to inevitable collapse, so too will the whole system collapse. It was the same with the passing of Roman super-power into the middle ages.

The ruins of militarism gave rise to its antithesis: the Christian paradigm, which dominated the West for a thousand years. The intellectuals of this era were engaged by church authorities in perpetual devotion to the divine creator of the universe. Thus, while Christian wars were primitive, Christian Scholasticism was highly developed. The era of Christian tranquility came to an end with the Mongol threat in the 13<sup>th</sup> century, whereupon Roger Bacon, the English philosopher and natural scientist, advised Pope Clement IV to allow the study of physics and chemistry in the interest of Christendom.

Bacon himself had discovered the chemical formula of gunpowder, by analyzing bits of it brought back from China. Archimedes's science was resurrected. The mechanical clock was invented during the same century. The impulse of such an accurate machine became an irresistible metaphor in itself, shaping the scientific world view between the 17<sup>th</sup> and 20<sup>th</sup> centuries. The Middle Ages had come to an end.

The 14<sup>th</sup> century saw intellectuals beginning to revisit Archimedes's interpretation of the mechanistic paradigm. This paradigm, culminating in the 17<sup>th</sup> century, pushed consciousness from the core of inquiry away to its margins; scientists had no way of coming up with a mechanics of mind. The virulent turn of the modern era away from the medieval paradigm only intensified this intellectual vice. The scientists of the modern era mostly served at the behest of their military empires -- Britain, France, Germany, Russia, then the Soviet Union and the United States. Enabling efficient government control, developing nuclear weapons, observing their enemies from space, et cetera -- these were now the altars on which the scientist would lay his gifts. The great achievements of Newton and his progeny, the advancements in technology leading to the industrial revolution, all made possible the European conquest of the globe. These were the fruits of the mechanistic paradigm.

The two great wars of the 20<sup>th</sup> century – with their climax in the nuclear evisceration of two Japanese cities, and the annihilation of European Jews in the gas chambers – evoked a humanistic reprisal. The time was now ripe to repudiate the mechanistic paradigm and merge the study of consciousness with science. The active involvement of consciousness had been discovered in quantum mechanics. Now the whole field of consciousness became interesting to leading physicists, like Max Planck (1847- 1958)<sup>16</sup>, Erwin Schrodinger (1861-1987)<sup>17</sup>, Wolfgang Pauli (1900-1958)<sup>18</sup>, Eugene Wigner (1901-1995)<sup>19</sup>, Brandon Carter<sup>20</sup> and others. It was time to uncover the code of the universe.

### The Genealogy of Survival

The code offered herein rests on an indisputable observation<sup>21</sup>: the universe, along with everything it contains, exists in a threatening environment. Everything, in order to exist, must survive; to exist is to survive. Therefore, the fundamental code of all natural forces is: the neutralization of threats. In the 17<sup>th</sup> century, this selfsame code was identified by Newton as “Inertia” and developed into a full-fledged socio-political theory by Thomas Hobbes. In the 19<sup>th</sup> century, Von Clausewitz used it to interpret war and human history; Darwin – the whole animal world. In the 20<sup>th</sup> century, Albert Einstein carried it further to his “Equivalence Principle,” interpreting space and time.

In the 17<sup>th</sup> century, Spinoza gave precise expression to the survival insight when he wrote: “Everything aspires to preserve its being, to be nothing but its essence in actuality.” Galileo expressed it with his own concept of inertia. Isaac Newton fixed this insight within a cosmic frame of reference, in three laws of motion and the law of gravity, which I will restate thus: everything that exists threatens according to its mass, and everything that exists neutralizes threats according to the same mass.

Even back in the 6<sup>th</sup> century BC, Heraclitus of Ephesus, the pioneer of dynamic thinking, determined that “War is the mother of all things.” In other words: neutralization of threats is the mother of all things. Heraclitus used the metaphor of fire, which neutralizes and extinguishes, always renewing itself in the process. Ergo, “Everything is Fire.” He held that fire expresses the fundamental symmetry in the universe: simultaneously

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<sup>16</sup> Max Planck said in 1931: “Science will never solve nature’s enigma, as we ourselves are part of the enigma we attempt to solve.”

<sup>17</sup> In 1944 he published the book “*Life, What is it?*” which opened the discussion regarding the connection between consciousness and quantum mechanics.

<sup>18</sup> “Behind reality lies a higher order, to which both the researcher’s mind and the object of the research are subjected”.

<sup>19</sup> “Man will never understand reality unless he takes consciousness itself into consideration.”

<sup>20</sup> “According to physics’ basic laws, the nature of our means of research must be itself be researched. Observation is one of these means.”

<sup>21</sup> The code will be presented in the language of Einstein’s “principle theory” of 1919

threatens and neutralizes threats, subsisting in constant flow: ergo, “everything flows” (“Pantha Rei”). This was the first philosophical formulation of Einstein’s equivalence principle – inertia-gravity – the constant flow of threats and their neutralization.

Plato concluded from Heraclitus’ doctrine that constant threat neutralization would undermine the proper functioning of the State. He aimed to neutralize the internal war of all against all, to consolidate the Heraclitean fire-system by means of cognitive tools: fixed insights – Forms. In Plato’s *Republic*, we find the unfounded assumption that the good is equivalent to the form of the forms – an idea that Carl Popper blamed for the rise of Hitler and Stalin. Indeed, though he may have been the prince of all philosophers, this argument represented Plato’s greatest failure, a failure which originated in the static cosmological paradigm of the Greeks. The Greeks never understood the meaning of motion and change, as Zeno’s antinomies<sup>22</sup> amply testify. While Judaism assumed one constant – God – to which everything relates, Plato assumed a constant for each event – a form – and thus detached himself from reality. The Heraclitean intuition had to wait another 300 years to be fully exploited in Archimedes’ dynamics.

In his *Physics*, Aristotle compared the notion of inertia to Heraclitus’ conception. Aristotle taught his students that “there is an opinion that no one can say why a body that was brought to movement will rest somewhere. For why must it rest here and not there? So a body can be either in a state of rest or movement ad infinitum, unless it is disturbed by something more powerful than itself”<sup>23</sup>. Aristotle rejected this approach entirely, claiming that in the absence of external force, the body cannot move itself if it resides in its natural place.

There was a deeper reason for Aristotle’s resistance to the inertia principle: The Aristotelian world was positivistic<sup>24</sup>, therefore finite. The same went for his mathematics and physics. The difficulty of confronting the notion of “infinity” challenges common sense, i.e., the frame of reference of personal experience. Contra Plato, who saw Geometry as the incarnation of pure reason and the fundament of knowledge, Aristotle dichotomized Euclidian Geometry, with its problematic but acknowledged idea of infinity, and the ancient physics which rejected it. What is remarkable is that the inertial approach, rejected by Aristotle, is given such healthy form in his lectures, almost approaching the terms of Newton’s First Law. Aristotle failed to merge mathematics and physics because he lacked the right mathematical tools.

The tools followed only a hundred years later, with Archimedes’ method of integration and exhaustion<sup>25</sup>. And indeed, after Archimedes a return to the Heraclitean intuition is

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<sup>22</sup> Insoluble contradictions

<sup>23</sup> Aristotle “*Physics*”(642-1639)

<sup>24</sup> I.e., based solely on sense experience

<sup>25</sup> The method which preceded calculus, which Newton and Leibnitz developed independently in the 17<sup>th</sup> century.

apparent, viz., everything exhibits an internal tendency to continue its state ad infinitum. Infinity is impossible, seemingly, because equipotential forces of resistance pit entities against one another; according to Mach, however, resistance and neutralization themselves aspire to infinity, meaning that infinity is indeed realized, here and now, in the positivistic-Aristotelian world.

The concept of inertia can also be found in the writings of the Greek mathematician and astronomer Hipparchus of Rhodes (2<sup>nd</sup> century BC)<sup>26</sup>. The 6<sup>th</sup> century Alexandrian scientist and philosopher John Philoponos, who performed the same experiments Galileo would eternalize a thousand years later, also developed the idea that the body carries with it a moving force, or some tendency for movement (*incorporeal motive energiea*) – even after it parts from the external body which initially imparts that force – without the force of an additional body, as Aristotle believed. This tendency for motion was subsequently named ‘*impetus*’.<sup>27</sup>

The Moslem physician, philosopher and scientist Ibn Sina, active during the 10<sup>th</sup> and 11<sup>th</sup> centuries in Persia, followed in Philoponos’ path. He wrote about an inherent attribute of bodies which he termed ‘inclination’. According to Ibn Sina, the projected body acquires this attribute from its projector, and retains the selfsame attribute in its course of motion. “When we observe reality we can confirm the opinion of those who think that the body in motion receives inclination from the mover. Inclination is what is sensed when we attempt to stop a body in motion – we sense a force of resistance, which undoubtedly exists in the body.”<sup>28</sup>

About 300 years after Ibn Sina, the anti-Aristotelian and pre-Newtonian trend received prominent expression in the West in the works of Jean Buridan (1300-1370), the dean of the University of Paris. For the first time, the idea of *impetus* was expressed in quantitative magnitude, proportional to the quantity and velocity of matter (similar to what we call *momentum*). This quantitative magnitude is responsible for the body’s motion. Buridan thought that motion would continue forever without various delaying factors<sup>29</sup>. In contrast, we say that delay is eternal, which implies that eternity doesn’t exist in the realm of motion – where many keep looking for it – but only in the realm of survival.

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<sup>26</sup> Hipparchus had a crucial influence on the astronomer Claudius Ptolemy, who lived in Alexandria in the second century AD; his geocentric theory survived for 1400 years – until the Copernican revolution. Crowe Michael, J. *Theories of the World from Antiquity to the Copernican Revolution*. New York, 1990.

<sup>27</sup> Wildberg, C. *Impetus Theory and the Hermeneutics of Science in Simplicius and Philoponos* 5, pp. 107-124, 1999.

<sup>28</sup> L. Goodman, Avicenna in Robert Wisnovsky (editor), *Aspects of Avicenna*, Markus Wiener, pub., London, 2002.

<sup>29</sup> Thijssen, J.M.M. H., and Jack Zupko (eds.) *The metaphysical and Natural Philosophy of John Buridan*, Brill, Leiden-Boston-Koln, (2001).



The 17<sup>th</sup> century saw the West's final liberation from the guardianship of Aristotle -- including Aristotle's repudiation of the physical survival principle. The process had begun, as we said, with Roger Bacon in the 13<sup>th</sup> century. In the 16<sup>th</sup> century, Copernicus dealt the final blow to the physics of common sense when he showed that Plato was right, that astronomical truth, rather than consisting in what our senses perceive and lend to reason, actually goes against our senses. Copernicus based his method on "Occam's razor": mathematical economy and simplicity<sup>30</sup>. And though he astonished Christendom with his heliocentric claim, he still lacked physical proof. That was left to Galileo, who formulated the principle of inertia and relative motion. Bodies continue to move independently, and this movement, within an inertial frame of reference, isn't perceived by the senses because of our own internal frame of reference.

Copernicus' excommunication only lent prestige to his claims, and Kepler, working in parallel, formulated the mathematical rules of planetary motion. Together they formed the impetus for the Copernican revolution, a consolidation founded on the principle of the conservation of motion. The father of dynamics, Heraclitus, said that everything is motion; our modern dynamic sciences echo that claim: all motion is conserved. The inertial principle engaged most of the scientists and philosophers of the early modern era, and it continues to engage us today, at the dawn of the 21<sup>st</sup> century. Descartes, whose dictum *cogito ergo sum* ("I doubt, therefore I am") is the battle cry of modern science, determined, as the first law of nature, that everything preserves its state: that which moves will continue to move. Spinoza laid this principle at the center of his philosophy, while Newton noted that he'd learned the inertial principle from Galileo.

Newton defined the first law of motion thus: all bodies either continue a state of rest or maintain their motion in a straight line -- unless induced to change by another force. Newton taught that inertia is an inherent force in an object's mass (*vis insita*), that inertia (*vis inertia*) always tends to preserve its course. The code of the universe, then, consists in the following: survival organizes and activates every other principle in reality; therefore, survival is the teleological principle underlying every realm -- the micro and macro, the inorganic and the organic; the inanimate, the vegetative and the fauna; in information of any kind, i.e., religion, culture, science, ideology, et cetera.

In other words, the super-cause of all occurrences is the fundamental need of every being to neutralize forces/threats in order to survive, in the context of an ever threatening environment. The same explanation underlies the inertial tendencies of human society and its products -- the need to persevere by neutralizing threats. Ergo: I survive (by neutralizing threats), therefore I exist. This claim is both informative and rational, both simple and universal, and as such it confronts successfully the conditions for any account of reality. There is something of a diabolical fixation in this dynamic worldview, which common sense can neither easily accept nor fully dismiss, as it lives somewhere in the nether of the mind for eternity. The first two give systematic expression to this

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<sup>30</sup> William of Ockham, a 13<sup>th</sup> century English monk and one of the greatest scholastics, introduced the important principle in the methodology of theory building: the minimalist explanation. This principle is called "Occam's razor"

“diabolical” stream was Heraclitus, on account of which he was called the “obscure” by his generation. Plato identified this tendency, and dedicated his intellectual life to fighting a hopeless war against it (which goes to show that Plato didn’t understand reality, even when he stepped outside the cave.) The founders of the great religions – Abraham, Moses, Jesus, Muhammad and Karl Marx -- made the same mistake. Machiavelli, Hobbs and Hegel strived to restrain the fixation, while Darwin, Nietzsche, Freud, the proponents of Quantum theory and the postmodernists surrendered to it. What did they surrender to? The worldview of the war of all against all, both creating order and destroying it. On this view, peace is merely another military expedient, destined to collapse. Even our own system of thought, according to which fundamental particles are always “fighting” each other, is one more move in this war dynamic; our system of thought is an expression of a subconscious desire to confront the threat on our conscious mind.

Assuming that this principle is burnt into physical reality itself, I’ll try to answer the question of how everything else derives from it. I will try to show that this principle is the simple, beautiful and persuasive idea foreseen by John Wheeler.

The recipe is based on the hypothesis that survival is the super-information superstring<sup>31</sup>, hereafter referred to as SIS<sup>32</sup>, which weaves every physical event in one fiber of super-information: Threat-neutralization<sup>33</sup>. This super-fundamental super-information doesn’t exist in a spatial dimension, but in a higher dimension. For the first time, then, we arrive at a notion of super-space, which creates a fundamental super-force in the universe: survival, which persists in every interaction. This super-force gives rise to the four fundamental forces known in nature: gravity, electromagnetism, and the strong and weak nuclear forces. These four forces underlie every physical event, consisting of the SIS code of threat neutralization. SIS, therefore, is the cornerstone of the theory, which explicates that information is a basic element of physics.

Such is the basis for Survival Theory (S-Theory), which stands as a Theory of Everything – as it points to the source of all four fundamental forces, thus uniting Relativity Theory and Quantum Mechanics while including the observer in the equation of threat-neutralizing (where the observer is also a threat). SIS has a dual-nature: it is double-faced – both contradicting threats and while acting as a threat.

The dual nature of SIS creates a super-elemental symmetry, unbreakable in the breadth of existence, subsisting through every imaginable permutation. This superstring, whose vibrations are responsible for the diversification in nature, compresses regularities – threats and their contradictions. For the simplest systems, only the original fiber is activated; for more complex systems -- especially in organic ones – accounting for simple

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<sup>31</sup> Physics has begun using the analogy of a violin string, possessing an infinite quantity of vibration-states, in the superstring theory.

<sup>32</sup> Which gives rise to SOS

<sup>33</sup> Collapse of systems breach of symmetries, diseases, famine and destitution environment pollution, violence, wars, natural disasters, et cetera.

and complex threats, contradicting strategies and tactics are activated. In the human system – the most complex one – information fibers chains are activated, all derived from the initial information fiber, to the point that the connection between the threats and the means activated for their contradiction isn't clear from the perspective of common sense. The dynamic process – from simplicity to complexity, from collapse to recurrence – is determined by dialectic mutual relations of threat neutralization.

Our universe's fundamental equivalence is: to exist is to threaten threats. Thus, a relationship of equivalence prevails between every member of the set of existents and every member of the set of threats. In other words, threat neutralization is a threat on that which is considered a threat. There is therefore a fundamental reciprocal symmetry in the universe: threat  $\leftarrow\rightarrow$  contrary threat, where time can be expressed as the range of threat.

Implicit here is the reduction of everything to the concept "survival". Assuming that holds, and assuming the universe had a beginning in time (as was mathematically proven by Roger Penrose and Stephen Hawking in 1970, on the basis of general relativity, with their formulation of "singularity"), this genesis consisted of SIS, not the big bang (a result). This big bang happened when an SIS fiber was cut in the exploding mass, as a result of a failure in the contradiction of inner threats on the system. This hypothesis is basically meaningless (even nonsense) within the contemporary paradigm, but is nonetheless a simple and beautiful explanation in paradigm offered here.

In conclusion:

- If threats define time, then time preceded the big bang, and consisted of internal threats
- If time had a beginning, it wasn't the big bang; rather, it began when information converted into mass/energy.
- Philosophers were mistaken when they used information to formulate their ontology, and physicists were mistaken when they limited themselves to the study of mass and energy.
- We have to turn our attention to the ontology of information and the physics of information. If we assume that threats don't apply to information, we can derive the following conclusions:
  - Time does not apply to information.
  - Time is eternal.
  - Information doesn't exist within the four dimensions of the universe, but in a higher dimension

A principal idea, and a theory derived therefrom, don't suffice for an understanding of existing systems. That would require an immense quantity of new information, which no one can predict in advance. Such new information, containing the mark of SIS, is responsible for the diversification of reality.

## D. Gideon's Miracle

In conventional monotheism, a miracle signifies divine intervention in the world's natural course. Our greatest sages have instructed, however, that the world doesn't operate through miracles: we live in a natural world, and what might appear a miracle is merely rare, at least from our perspective. For a phenomenon not to remain rare, it must be engaged in dialogue so that it can be understood – so that it can be repeated, so that it can help in neutralizing threats.



**Gideon Ariel**

The pioneers of human thought have held such dialogues: Abraham, Heraclitus, Plato, Aristotle, Archimedes, Roger Bacon, Copernicus, Galileo, Descartes, Newton, Kant, Einstein, Wittgenstein, Buber, Stephen Hawking and their likes. Dialogue of such depth requires an inordinate cognitive energy, which is itself rare. This can account for the paucity of such dialogues, and the consequent prevalence of destruction.

Our claim, indeed, is that an educational miracle – a truly rare event -- occurred in Hadassim: souls were rescued from utter collapse and rehabilitated. As two people who were at the center of it, we, the authors, have spent recent months engaging in an “I-Thou” dialogue, both with each other and with the history of Hadassim, in an attempt to understand what made it possible. It was a heart to heart synthetic-holistic brainstorm, with nothing to disturb us – not even resistance from certain quarters who would rather oppose dialogue, hoping to distract from their own ignorance. The parable of the golden calf was an allegory for the masses' distaste for the Mosaic gospel, a product of Moses' dialogue with God. Resistance to dialogue constitutes the frictional element in the execution of important missions – a phenomenon recognized by Von Clausewitz in his book *About War*.

Hadassim's miracle of miracles is the story of Gideon Ariel, the co-author of this book. Miracles happened to all of us, to Shevach Weiss, Micha Spira and me, but Gideon comes in first by everyone's assessment. As we near the end of our story, when the reader is already acquainted with our journeys and dreams, we now offer him the opportunity of a Buberian dialogue with the singular phenomenon of Gideon. Should Hadassim one day be regarded as a model, everyone will have the chance to reach where Gideon has reached.

At the beginning lay the genes, excellent in quality, without which none of the rest would follow. But they were consigned to a hostile environment, reminiscent of the story of baby Oedipus, whose father (the king) commanded that he be drowned in the river. In this case, the king had him tortured day and night, and the baby wailed and cried.

But then the most astounding thing happened: having pierced through thick walls, outside the screaming had transformed into music of ineffable beauty. A herd of men assembled and cried: “Let him suffer! The music is joy to our ears!”

This is Gideon's special music.

We are talking here about a man whose father beat him body and soul, from the moment his son was born to his last days on earth; a boy who observed in horror-laced curiosity as his mother made extramarital love to the mayor of Tel Aviv and the city's chief engineer; a boy who looked on as psychiatrists dragged his healthy mother from her home and into a mental ward; a boy who repeated the fourth grade, who was rejected from the Technion, who was barely accepted at the seminar for physical education teachers at the Wingate Institute.



No one in Hadassim, not even his close friend Chilli, had known the details behind some of Gideon's grueling history. Gideon himself remained ignorant of some of the facts uncovered in this book. There may even be something left to discover in all of it, but as our sages of old have said: it's not for us to lay bare every secret.

Given such a ghastly early childhood, what kind of future did he have waiting for him? Whoever had known him during that period could only have hoped that he wouldn't fall apart completely. That was precisely his father's attitude – Moshe, the only man in the world who had access to all the information,

### Gideon's father

but who couldn't properly grasp any of it. Moshe Ariel made an effort to admonish his son at every turn, "You'll never amount to anything!" evidently intent on spurring him to learn a profession and avoid the double penalties of poverty and violence. His father didn't know then that Gideon – like the Hadassim phoenix and Hugo's *L'homme Qui Rit* – is his own miracle, the miracle of a freedom that transcends every barrier, the miracle of intellectual sovereignty. The latter characterization should go well to dissuade the reader from any simplistic misreading of our main thesis.

Because of the values he absorbed in Hadassim -- principally the value of self-examining dialogue ("Know Thyself"<sup>34</sup>) -- and given tremendous willpower and perseverance only few can possess, Gideon turned himself into a champion athlete, representing Israel in two Olympic Games, and pursued a doctorate in the U.S. before developing a new applied scientific field: computerized sports bio-mechanics.

It has been left to the noblest among us, singular in history, to open up new scientific vistas. Gideon was one of them. An achievement of that sort requires shifting the given paradigm, a venture reserved for men of exceptional caliber. Gideon may not be Einstein -- but Einstein wasn't Newton, either.

Gideon went on to help the USA through two Olympic Games, and he is personally credited for paving the way for several American athletes who went on to break sixteen

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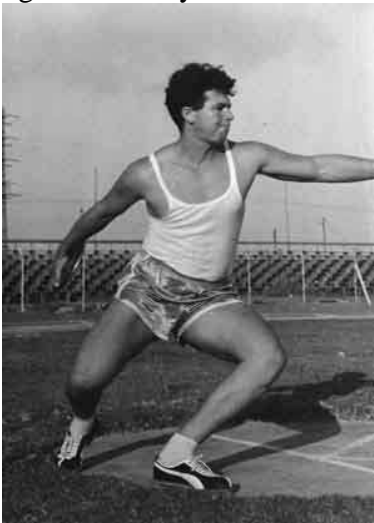
<sup>34</sup> Two inscriptions were carved onto the entrance gate to Apollo's temple in Delphi: "Know Thyself" and "Everything in measure" - The foundations of Greek Classical culture and of Western civilization.

world records. Today he serves as the biomechanics consultant for the Chinese 2008 team, though he helps train the Israeli team as well.

Without Gideon Ariel's story, the story of the Hadassim Miracle would be incomplete. But his story is enough proof for anyone that the Hadassim model would serve brilliantly as the cornerstone of a new educational paradigm.

When Gideon was 17 years old, the village of Hadassim hosted an event -- the Hadassiada -- wherein athletes from WIZO institutions all across the country competed in a myriad of sports. Gideon dominated the shot-put event (16.55 meters). It was clear that Hadassim had a star in its midst. Hours later, Gideon and Iris were watching as Uri Glin, a relative of Iris', broke the Israeli discus record. Gideon boasted that he would overtake that record soon enough, and those around him forgave him for harboring what they thought were delusions of grandeur. Gideon has always been shy by temperament, but when he dialogues with his own dreams his chutzpa knows no boundaries. It suffices to say, that brand of chutzpa has always led humanity forward (and driven the establishment gatekeepers crazy).

"I've achieved everything I set out for my life," Gideon says. "If I believe in something, I go all the way. I have a reservoir backup for everything I do -- a driving will."



**Gideon with his discus**

Gideon was serious about breaking Glin's record, and he needed to dialogue with his discus in order to succeed. "I slept with my discus tied to my hands for years. Whenever I trained, I always asked it, 'Fly a little farther, just a little farther...'" One time Gilead Weingarten<sup>35</sup> came by the field and heard me talking to the discus. He thought I'd completely lost it. I pretended it was all a joke, of course; but in truth I was completely serious about it -- I could hear the damn thing talking back. I knew it was abnormal, but that didn't matter much to me. I kept visualizing myself standing on the winner's platform and holding the discus. I did the same thing with the shot-put. I wasn't familiar with the concept 'dialogue' yet. Now I understand that's what I was doing."

By the 12<sup>th</sup> grade, there was no doubt that Gideon was the leading athlete at the discus and shot put in the country. Uri Glin had begun to reflect about Gideon's 'joke' -- that it was no joke at all.

Despite his immense intellectual potential, his childhood traumas had blocked his synthetic-analogical programming. He ended up failing the bible and Hebrew literature

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<sup>35</sup> Currently a lecturer in the college for physical education at the Wingate Institute's general manager.

state exams. I feel partly responsible for those failures, as I'd already left Hadassim by that time (during 10<sup>th</sup> grade); our dialogue, which began early on in my grandfather's apartment on Lilienbloom St., was only reignited after a period of fifty years, when we decided to co-write this book. As for the rest of his academic performance, he managed to receive high marks in physics, biology and math; his digital-analytical side was strong enough to break through his psychic barriers. He was especially skilled at Biology. These accomplishments brought home to him the following insight, perhaps the most important one: "If I can't excel at anything, then I might be dumb. But if I can excel in at least one field, it just means I have some issues..." Studying biology with Micha Spira and Chemistry with Gideon Lavi made this point ever clearer.

Still, having failed two of his exams meant he couldn't study at the Technion. But even that was for the better. He wasn't ready for that kind of experience yet. In those days, in the sixties, he was better off somewhere else – in the U.S., where the software and computer industries were about to go through their nascent stages. The opportunity wasn't quite there for him yet in 1958, anyway. On the advice of his trainer, Yariv Oren, he turned to study at the Wingate Institute (at the seminar for physical educators), where he prepared for the Rome Olympic Games. He initially failed the entrance exam for the school, but Yariv pulled some strings and managed to get him in.

Gideon trained vigorously for two years. The qualifying matches were held in 1960. The current shot-put champion, Uri Zohar, was there, and Gideon let it be known to all the journalists that he intended to break the Israeli record. And he did just that, at the very first trial, breaking Uri Zohar's spirits in the process: the old champion ran to the bathrooms and cried. Then, the next day Gideon broke Glin's discus record – by three meters (!). Needless to say, Gideon qualified for the national team – a dream which only recently had seemed impossible. Unfortunately, his performance in Rome was lackluster, far below his standards.

"Failing at that point, just when I'd reached the world stage, was a residue of my father's sabotage. I became paralyzed: my hand just wouldn't move right. I was much better when I was training."

John Walker, the American trainer, offered him scholarship at the University of Wyoming, but Gideon declined: he was looking forward to his military service. He would continue to train in the army, and he even gave some lessons to some of the most senior IDF commanders -- including (then) Major General Yitzhak Rabin, Major General Ezer Weitzman and Colonel Arik Sharon. He left the IDF after two and half years, writing to Walker about the scholarship he'd offered him. The American trainer sent him a one way ticket.

"I decided to leave the country, along with all my private issues there. My friends tried to warn me about the scourge of emigration. But my desire to escape from my past was stronger than any fear of being accused of abandoning the country. My mother was still alive then, still in a psychiatric ward. If anything, I felt guilty for abandoning *her*. Nobody came to see her, as she couldn't recognize anyone.

“I arrived in New York, where I got on a four hour flight to Wyoming. I had five dollars in my pocket. Walker had arranged to have a bus pick me up and take me to the university – where it was incredibly cold. I didn’t have any of the right winter gear, so I was absolutely freezing.

“I barely knew any English at the time, so I took sewing, drawing, physiology, physics – velocities and accelerations – the Mickey Mouse courses, basically. College athletes don’t really need to study much in America. I still took the classes seriously, so I was able to make great advances, and not only in sports.

“I was rather lonely and miserable for a while; I even told Walker I wanted to go back home. I had a girlfriend in Israel, Yael Tzabar, a member of the *Inbal* dance troupe. She was very beautiful, and I was crazy about her. We didn’t quite fit as a couple, but it was important to me to be seen with a beautiful woman. Walker suggested that I help arrange a scholarship for one of my Israeli friends, so that way I’d have someone with me in Wyoming. I invited Gilead Weingarten, the long jump athlete, and we ended up sharing a room together in the athletes’ wing. The temperature in February 1961 was ridiculous: 50 below zero! On the other hand, we were getting everything for free, so...

“I spent most of my time throwing the discus and shot put around. My discus record had been 55 meters, but I managed to reach 58 meters at the time. Sadly, that record wasn’t validated in Israel.

“Yael finally joined me, and soon we were married and had a daughter. I was very much in love. Yael shared my father’s dominant qualities. She eventually divorced me, after she’d had enough of my addictions – for study, for my training, and for working on my inventions.

“When it came time for the next Olympic qualification rounds in Israel (for the Tokyo games), no one stood a chance against me. My throws never fell below 53 meters, and no one else could climb above 47. In Tokyo, however, I let my nerves get the better of me again. My performance was pitiful. Athletes are supposed to prepare like professionals, adjusting their nutritional intake when necessary, but I let myself binge on deserts and I gained weight. You just can’t compete on the world stage without professional coaching. I trembled with fear when it came time to face the world champions. They were all two meters tall (6’5”) and looked like they weighed 100 kgs. Their throws were better than mine – 20 meters – setting new records.

“I just wasn’t ready for what I encountered in Tokyo.”

“I was a good student at Wyoming. I finished my bachelors in 1966. Both Gilead and I did very well academically. I remember him asking me about getting gowns for the graduation ceremony.”

‘What do we wear underneath?’ I asked.



‘Underwear, I suppose,’ he replied, grinning.

“So we only wore underwear underneath our gowns, giving everyone a perfect view of our hairy legs. We were the joke of the graduation party. Anyway, we’d both done well enough to get scholarships for graduate school. I went to Mass for my doctorate, and Gilead went left for Minnessota.”



Gideon was ready for an academic challenge. The genetic power stifled by his father in early childhood now broke loose, like a volcano: Gideon decided on a joint doctoral program, in biomechanics and computer science. His was the virtue of the anti-Scholasticism Renaissance man who breaks through the culture’s mind-body dichotomy, and he displayed that in full via simultaneous engagement in research, intellectual development, creation and business -- all the while continuing to train for athletic competition.

Given the invincible narrow-mindedness that prevails in academia, Gideon will no doubt be met with envy for his Promethean abilities and success, for using his skills to make money. At Boston, he specialized in Cybernetics<sup>36</sup> and software development – he was among the outstanding specialists in that field for a good period – developing software for monitoring the nervous system.

#### Ann and Gideon

“I finished my PhD in biomechanics at the age of thirty. I was concurrently enrolled in a physiology program at the Bloomington medical school in Indiana, and when I finished with that I began an engineering program – starting as a freshman. I didn’t let my lecturer in on the fact that I had a PhD, along with a university job of my own. One day, I had to leave in the middle of class in order to teach a seminar on the other side of campus, so I let my professor know about it. ‘You’re a lecturer?’ he asked, looking slightly puzzled. That weekend I sent him ten of my publications, so when I came back to class on Monday he made it a point to say, in front of everyone: ‘Dr. Ariel, you don’t have to take anymore tests.’ He was angry at me for not telling him about my record. I’d already studied dynamics, statistics, statics and liquids...”

As a first-handed man, Gideon has been motivated by his spiritual creativity, the ultimate source of his business success.

“Money wasn’t my motivation. If it were, I wouldn’t have amounted to much. I hate running after money – it’s the death of creativity. There was always the need for it, of course, but I didn’t just sit there and think in terms of ‘how to make money’. I got patents for my inventions, some of them very lucrative, but I never bargained. At the time I could probably have doubled my capital, if I really wanted to.

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<sup>36</sup> The science engaged in communication processes and automatic control systems of living beings vis a vis computer feedback mechanisms

“My financial situation was pretty bad when I finished my doctorate. My tuition was free, but I was getting a very low stipend as an athletics trainer, and I had a family to think of – my wife and my daughter, Geffen. Geffen would later die of leukemia.

“Sometime in 1969 I ran into Harold Zinkin, ‘Mr. California,’ who had made tons of money running his own gyms. I gave him advice about developing a machine that could substitute for weights, eliminating much of the accident risk. He was very enthusiastic about my idea, so together we built the first ‘Gladiator’ model. We sold fifteen machines in the first year, and by 1971 the number climbed up to a thousand. At that point I built an improved model, the “Centurion,” and received a royalty check for a hundred-thousand dollars from Zinkin. When I showed the check to all my teachers and colleagues, naively hoping to spread my happiness around, I got a lot of dirty looks. Right there I learned a harsh lesson: never talk about money with anyone. Rather, if you tell people that you’re losing money, everyone will be your friend.

In 1972 Gideon received his PhD in Biomechanics -- the same year he invented air-soles for running shoes -- the same air-soles that have paid him fifty million dollars in royalties over the years. He invested most of his early money in a biomechanics lab, the most sophisticated of its kind in the seventies. From all over the world, States, corporations and sports institutions have looked to Ariel’s laboratory for their projects. He got his PhD in computer science in 1975, and became a college professor.

As Gideon ran around campus with million dollar checks in his pockets (he didn’t have time to visit a bank), what was first only envy of him turned into searing hatred. Two professors sued him in the early 80’s for exploiting his academic position for profit; they demanded that he contribute half his business earnings back into the university. By the end of the ensuing trial, the district court judge said that “if Mr. Ariel was obligated to compensate the university, the university must, in turn, compensate Isaac Newton.” Gideon resigned from his teaching position a short time later, dedicating his full efforts to his inventions.

Sometime at the start of 1968, Gideon made an appointment with Walter Carol, a physiology professor. The blond girl who let him into the office was a striking beauty. Gideon asked if he could speak with the professor, but the girl informed him the he was in the wrong office and abruptly closed the door in his face. “What a bitch!” Gideon thought to himself. That would prove to be only his first encounter with Ann Penny -- his future wife. Soon enough, Gideon enrolled in an advanced statistics course, and one day the lecturer asked a question that no one seemed willing to answer. Suddenly a hand went up, and there she was – the same beautiful girl from the “wrong office”. Gideon knew he had to have her, and he courted her with unassailable confidence until she finally fell for him. They’ve been inseparable ever since. In Ann, Gideon had found the mother he never had, and more. She’s his partner in everything: in the development of his ideas, his dreams, his business – even in this book. They finally married each other after thirty-five years of close, creative dialogue.

When Gideon felt secure enough in his abilities, he began working on his dream project. For a long time, Gideon had been developing the notion of “dynamic shifting force,” an idea that prodded him from the moment he started tying chains and food cans to his weights. By the time he’d carved a life for himself in America, he was already thinking in more advanced terms: “dynamic variable resistance”.

Stephen Plaginof, his Biomechanics professor, had shown him how to measure resistance on every joint in the body. Such techniques had evidently already been developed in Germany during the 19<sup>th</sup> century, and used by gymnastics trainers ever since. Gideon wanted to go a step further and computerize the measurement process. Personal computers weren’t around yet, just the mammoth-sized ones, and these were rather expensive – \$10,000,000 each. So Gideon built a small personal computer, perhaps the first in the world. In 1974 he showed it to Professor Ervine Dardick, a famous vein surgeon and inventor of a tube used for heart bypass surgery -- a surgery only he could perform at the time. He was also in charge of sports medicine for the Olympic Committee, and he was very excited by the PC. He, in turn, showed it to William Simon, treasury secretary (and head of the Olympic Committee), who showed it to William Kasey – the CIA director. In the end, Kasey and Simon teamed up to form a new company, Life Systems. They felt they could make millions with the computer, but they decided to pay for a ten-thousand dollar marketing survey, just to test the ground (and avoid an unnecessary loss). They dropped the project when the survey came back negative, and left the computer with Gideon.

In 1975, with that same computer, Gideon built a fully computerized system in line with what he had originally conceived in Hadassim and envisioned in the U.S. (Among other things, he applied a cinematic slow-motion graphics technique.) Gideon’s system identifies and analyzes an individual’s physical skills, then trains the athlete by tapping into his nervous system and shifting resistance levels according to changes in muscular force within a range of motion. Rather than having a trainer in a gym select the weight at each turn, Gideon’s patent allows a machine to determine the proper weight changes.

Gideon started by taking his invention to scientific conferences and talking to sports journalists. Those were the days when Biomechanics specialists treated him with the utmost contempt, branding him a crook. He was even sued at the time, but he won the case.

In 1976, Gideon was appointed scientific head of the American Olympic Committee. The volleyball team, trained by an Israeli named Arie Zelinger, was ranked 50<sup>th</sup> in the world at the time. After they started using Gideon’s technology, however, Zelinger’s team managed to make its way to the top, winning the silver medal. (The Chinese won the gold.) Later, in 1984, Gideon traveled to China. He met with Professor Chang Yu, and together they outlined a collaborative research project – one which ended up lending a great deal of credibility to his invention. He was also invited to present his technology in East Germany.

Today, Gideon's system is used the world over, for athletic diagnostics and training as well as other biomechanical applications. Governments use it to train their fighter pilots; NASA uses it to train their astronauts; President Reagan used it to improve his health while in office.

In April 2006, the University of Massachusetts presented Gideon with the graduate's medal for special contribution to science, an honor bestowed every five years to its prominent scientific alumni. The university which had once sued him, which had once sought to tear him down socially and financially, was now commending him in the most extravagant way. Gideon has made it big in the world, and there's still more to look forward to.

Gideon rose from the abyss up to the highest summit. Scars remain, of course, as with anyone who ever accumulates them. But the reason Gideon overcame those early traumas, in the first place, brings us back to Hadassim. His years in the village unleashed his colossal reserves of will and brainpower from the prison of his parent's home in Tel Aviv.

We believe that everyone has potential, each in his own realm. Often it remains hidden, oppressed in infancy, dulled by a childhood mired in pain, drowned in hostile environments. Hadassim applied the optimal model for liberating such hidden potentials. We can only hope for that model to be further studied and used for the betterment of mankind.