PART II

Homo Sapiens Gives Meaning to the World

What kind of world did humans create?

How did humans become convinced that they not only control the world, but also give it meaning?

How did humanism – the worship of humankind – become the most important religion of all?

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The Storytellers

Animals such as wolves and chimpanzees live in a dual reality. On the one hand they are familiar with objective entities outside them, such as trees, rocks and rivers. On the other hand they are aware of subjective experiences within them, such as fear, joy and desire. Sapiens, in contrast, live in triple-layered reality. In addition to trees, rivers, fears and desires, the Sapiens world also contains stories about money, gods, nations and corporations. As history unfolded, the impact of gods, nations and corporations grew at the expense of rivers, fears and desires. There are still many rivers in the world, and people are still motivated by their fears and wishes, but Jesus Christ, the French Republic and Apple Inc. have dammed and harnessed the rivers, and have learned to shape our deepest anxieties and yearnings.

Since new twenty-first-century technologies are likely to make such fictions even more powerful, to understand our future we need to understand how stories about Christ, France and Apple have gained so much power. Humans think they make history, but history actually revolves around the web of stories. The basic abilities of individual humans have not changed much since the Stone Age. But the web of stories has grown from strength to strength, thereby pushing history from the Stone Age to the Silicon Age.

It all began about 70,000 years ago, when the Cognitive Revolution enabled Sapiens to start talking about things that existed only in their own imagination. For the ensuing 60,000 years Sapiens wove many fictional webs, but these remained small and local. The spirit of a revered ancestor worshipped by one tribe was completely unknown to its neighbours, and seashells valuable in one locality became worthless once you crossed the nearby mountain range. Stories about ancestral spirits and precious seashells still gave Sapiens a huge advantage, because they allowed hundreds and sometimes even thousands of Sapiens to cooperate effectively, which was far more than Neanderthals or chimpanzees could do. Yet as long as Sapiens remained hunter-gatherers they could not cooperate on a truly massive scale, because it was impossible to feed a city or a kingdom by hunting and gathering. Consequently the spirits, fairies and demons of the Stone Age were relatively weak entities.

The Agricultural Revolution, which began about 12,000 years ago, provided the necessary material base for enlarging and strengthening the intersubjective networks. Farming made it possible to feed thousands of people in crowded cities and thousands of soldiers in disciplined armies. However, the intersubjective webs then encountered a new obstacle. In order to preserve the collective myths and organise mass cooperation, the early farmers relied on the data-processing abilities of the human brain, which were strictly limited.

Farmers believed in stories about great gods. They built temples to their favourite god, held festivals in his honour, offered him sacrifices, and gave him lands, tithes and presents. In the first cities of ancient Sumer, about 6,000 years ago, the temples were not just centres of worship, but also the most important political and economic hubs. The Sumerian gods fulfilled a function analogous to modern brands and corporations. Today, corporations are fictional legal entities that own property, lend money, hire employees and initiate economic enterprises. In the ancient cities of Uruk, Lagash and Shurupak the gods functioned as legal entities that could own fields

and slaves, give and receive loans, pay salaries and build dams and canals.

Since the gods never died, and since they had no children to quarrel over their inheritance, they gathered more and more property and power. An increasing number of Sumerians found themselves employed by the gods, taking loans from the gods, tilling the gods' lands and owing them taxes and tithes. Just as in present-day San Francisco John is employed by Google while Mary works for Microsoft, so in ancient Uruk one person was employed by the great god Enki while his neighbour worked for the goddess Inanna. The temples of Enki and Inanna dominated the Uruk skyline, and their divine logos branded buildings, products and clothes. For the Sumerians, Enki and Inanna were as real as Google and Microsoft are real for us. Compared to their predecessors – the ghosts and spirits of the Stone Age – the Sumerian gods were very powerful entities.

It goes without saying that the gods didn't actually run their businesses, for the simple reason that they didn't exist anywhere except in the human imagination. Day-to-day activities were managed by the temple priests (just as Google and Microsoft need to hire flesh-and-blood humans to manage their affairs). However, as the gods acquired more and more property and power, the priests could not cope. They may have represented the mighty sky god or the all-knowing earth goddess, but they themselves were fallible mortals. They had difficulty remembering which estates, orchards and fields belonged to the goddess Inanna, which of Inanna's employees had already received their salaries, which of the goddess's tenants had failed to pay their rents and what interest rate the goddess charged her debtors. This was one of the main reasons why in Sumer, like everywhere else around the world, human cooperation networks could not notably expand even thousands of years after the Agricultural Revolution. There were no huge kingdoms, no extensive trade networks and no universal religions.

This obstacle was finally removed about 5,000 years ago, when the Sumerians invented both writing and money. These Siamese

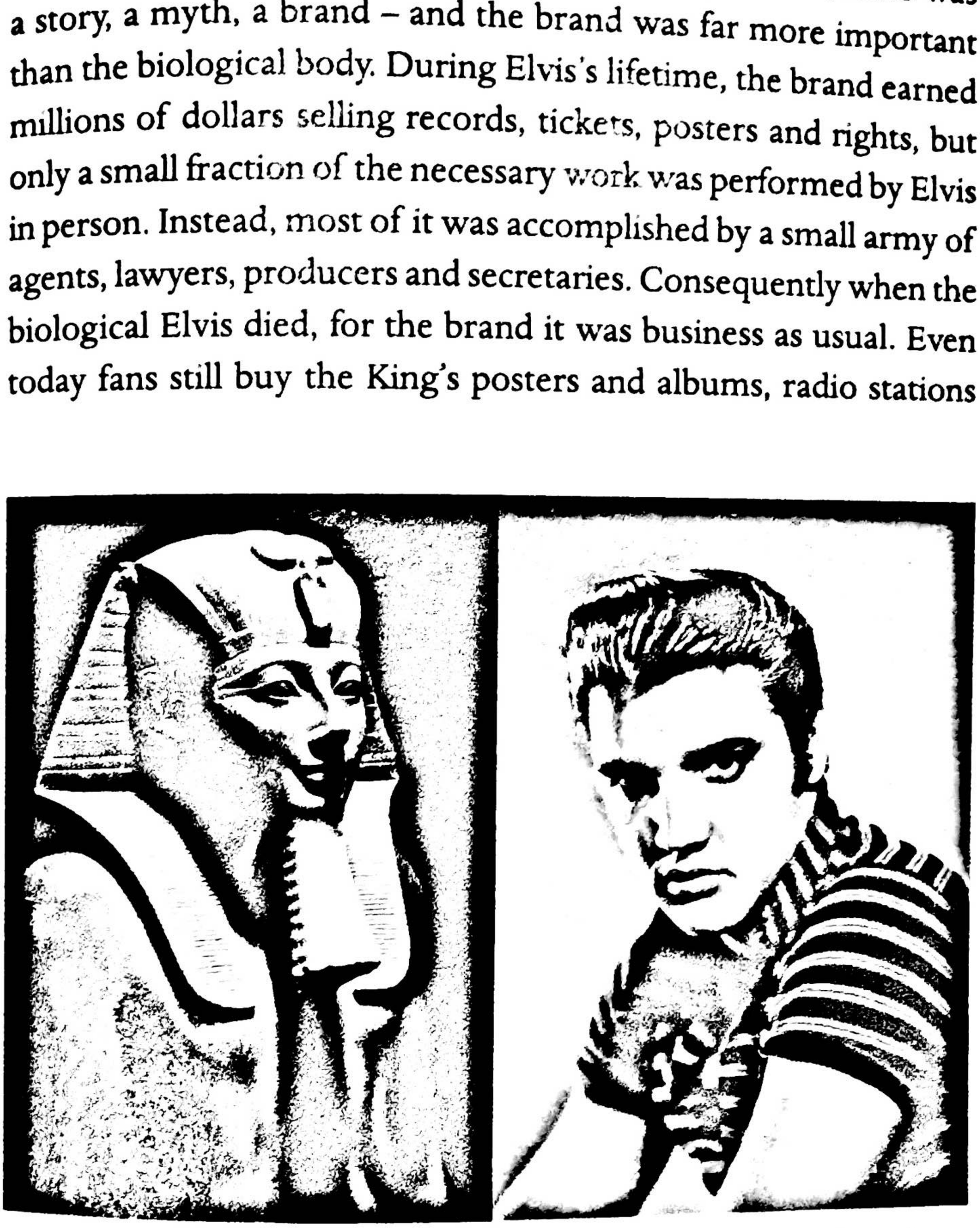
twins – born to the same parents at the same time and in the same place – broke the data-processing limitations of the human brain. Writing and money made it possible to start collecting taxes from hundreds of thousands of people, to organise complex bureaucracies and to establish vast kingdoms. In Sumer these kingdoms were managed in the name of the gods by human priest-kings. In the neighbouring Nile Valley people went a step further, merging the priest-king with the god to create a living deity – pharaoh.

The Egyptians considered pharaoh to be an actual god rather than just a divine deputy. The whole of Egypt belonged to that god, and all people had to obey his orders and pay the taxes he levied. Just as in the Sumerian temples, so also in pharaonic Egypt the god didn't manage his business empire by himself. Some pharaohs ruled with an iron fist, while others passed their days at banquets and festivities, but in both cases the practical work of administering Egypt was left to thousands of literate officials. Just like any other human, pharaoh had a biological body with biological needs, desires and emotions. But the biological pharaoh was of little importance. The real ruler of the Nile Valley was an imagined pharaoh who existed in the stories that millions of Egyptians told one another.

While pharaoh sat in the capital city of Memphis, eating grapes in his palace and dallying with his wives and mistresses, pharaoh's officials criss-crossed the kingdom from the Mediterranean shore to the Nubian Desert. The bureaucrats calculated the taxes each village had to pay, recorded them on long papyrus scrolls and sent them to Memphis. When a written order came from Memphis to recruit soldiers to the army or labourers for some construction project, officials gathered the necessary men. They computed how much wheat the royal granaries contained, how many work days were required to clean the canals and reservoirs, and how many ducks and pigs to send to Memphis so that pharaoh's harem could dine well. Even when the living deity died, and his body was embalmed and borne in an extravagant funerary procession to the royal necropolis outside Memphis, the bureaucracy kept going.

Officials kept writing scrolls, collecting taxes, sending orders and oiling the gears of the pharaonic machine.

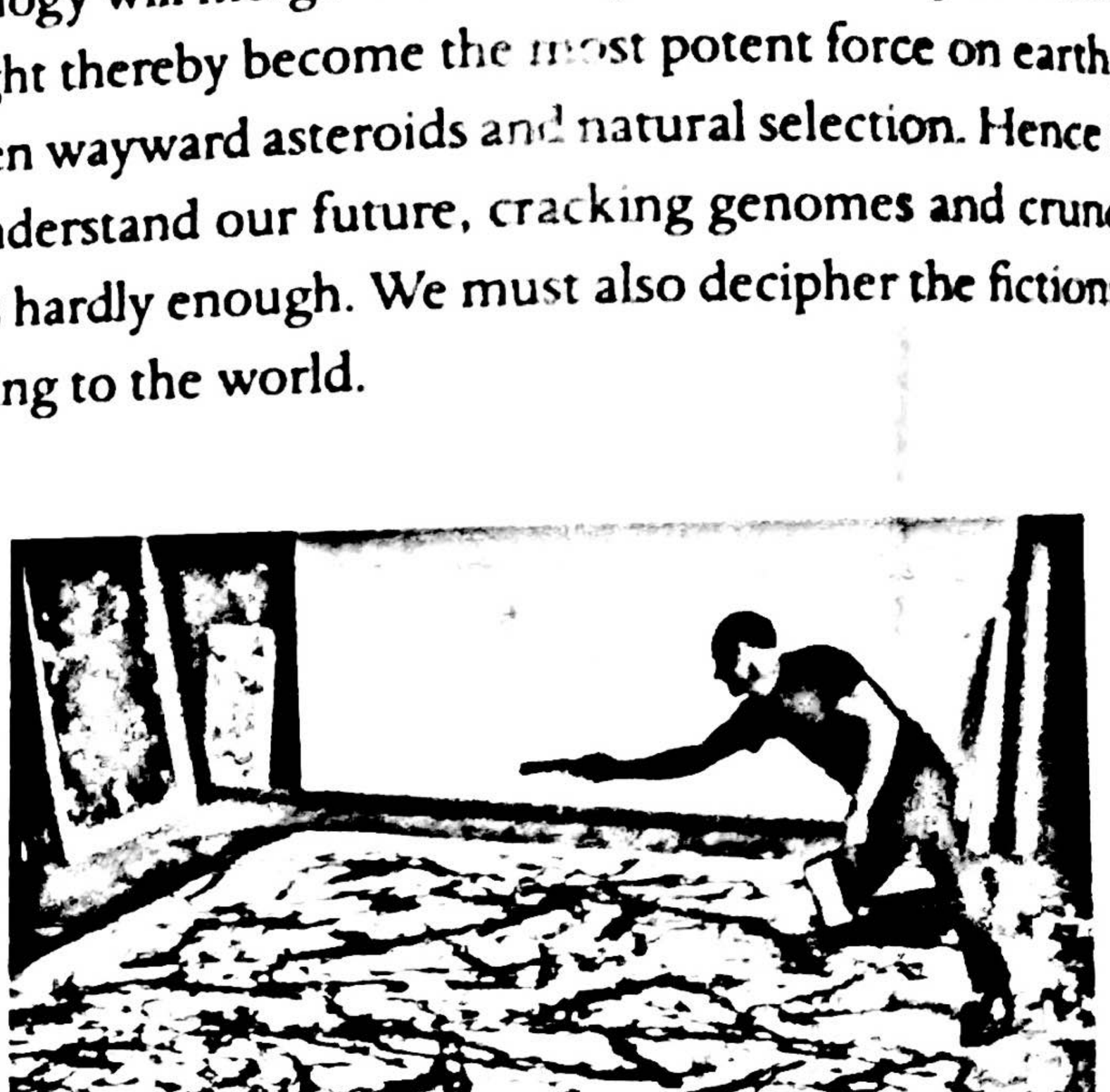
If the Sumerian gods remind us of present-day company brands, so the living-god pharaoh can be compared to modern personal brands such as Elvis Presley, Madonna or Justin Bieber. Just like pharaoh, Elvis too had a biological body, complete with biological needs, desires and emotions. Elvis ate and drank and slept. Yet Elvis was much more than a biological body. Like pharaoh, Elvis was a story, a myth, a brand – and the brand was far more important than the biological body. During Elvis's lifetime, the brand earned millions of dollars selling records, tickets, posters and rights, but only a small fraction of the necessary work was performed by Elvis in person. Instead, most of it was accomplished by a small army of agents, lawyers, producers and secretaries. Consequently when the biological Elvis died, for the brand it was business as usual. Even today fans still buy the King's posters and albums, radio stations



21. Brands are not a modern invention. Just like Elvis Presley, pharaoh too was a brand rather than a living organism. For millions of followers his image counted for far more than his fleshy reality, and they kept worshipping him long after he was dead.

believe. North Korea and South Korea are so different from one another not because people in Pyongyang have different genes to people in Seoul, or because the north is colder and more mountainous. It's because the north is dominated by very different fictions.

Maybe someday breakthroughs in neurobiology will enable us to explain communism and the crusades in strictly biochemical terms. Yet we are very far from that point. During the twenty-first century the border between history and biology is likely to blur not because we will discover biological explanations for historical events, but rather because ideological fictions will rewrite DNA strands; political and economic interests will redesign the climate, and the geography of mountains and rivers will give way to cyberspace. As human fictions are translated into genetic and electronic codes, the intersubjective reality will swallow up the objective reality and biology will merge with history. In the twenty-first century fiction might thereby become the most potent force on earth, surpassing even wayward asteroids and natural selection. Hence if we want to understand our future, cracking genomes and crunching numbers is hardly enough. We must also decipher the fictions that give meaning to the world.



20. The Creator: Jackson Pollock in a moment of inspiration.

go on paying royalties, and more than half a million pilgrims flock each year to Graceland, the King's necropolis in Memphis, Tennessee.

Prior to the invention of writing, stories were confined by the limited capacity of human brains. You couldn't invent overly complex stories which people couldn't remember. But with writing you could suddenly create extremely long and intricate stories, which were stored on tablets and papyri rather than in human heads. No ancient Egyptian remembered all of pharaoh's lands, taxes and tithes; Elvis Presley never even read all the contracts signed in his name; no living soul is familiar with all the laws and regulations of the European Union; and no banker or CIA agent tracks down every single dollar in the world. Yet all of these minutiae are written somewhere, and the assemblage of relevant documents defines the identity and power of pharaoh, Elvis, the EU and the dollar.

Writing has thus enabled humans to organise entire societies in an algorithmic fashion. We encountered the term 'algorithm' when we tried to understand what emotions are and how brains function, and defined it as a methodical set of steps that can be used to make calculations, resolve problems and reach decisions. In illiterate societies people make all calculations and decisions in their heads. In literate societies people are organised into networks, so that each person is only a small step in a huge algorithm, and it is the algorithm as a whole that makes the important decisions. This is the essence of bureaucracy.

Think about a modern hospital, for example. When you arrive the receptionist hands you a standard form and asks you a predetermined set of questions. Your answers are forwarded to a nurse, who compares them with the hospital's regulations in order to decide what preliminary tests to give you. She then measures, say, your blood pressure and heart rate, and takes a blood sample. The doctor on duty examines the initial results, and follows a strict protocol in determining to which ward to admit you. In the ward you are subjected to much more thorough examinations, such as an X-ray or an fMRI scan, mandated by thick medical guidebooks.