Epistle 23

The Ninth Epistle of the Natural and Physical Sciences

On the Composition of the Body

This is the Twenty-Third Epistle of the Epistles of the Brethren of Purity

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and He is sufficient. Peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Know, O brother—may God strengthen you and us with a spirit from Him—that we have completed our discussion in the Epistle on Animals, explaining the wonders of their bodily structures and the remarkable features of their conditions. The purpose of that epistle was to explain the genera of animals, the number of their species, and the differences in their forms and natural dispositions.

We had another purpose as well: we wished to disclose their realities through those allusions and expressions, so that our purpose would not remain hidden from the wise, according to what we explained in the appropriate chapter when mentioning the King and the angels.

It is now fitting that in this epistle we discuss the composition of the human body, since the final degree of the animal realm is joined to the first degree of the human realm.

Our purpose in this epistle is to demonstrate that **the human being is a small world—a microcosm**.

Know—may God grant you success—that if a human being claims to know things while not knowing himself, his likeness is that of someone who feeds other people while he himself is hungry; or someone who treats the illnesses of others while he himself is sick, diseased, and infirm; or someone who clothes others while he himself is naked and his private parts are exposed before the people with nothing to cover them; or someone who guides people along a road while he himself is lost and does not even know the road to his own home.

You know that in all these matters a person ought first to begin with himself and only afterward with others.

Know that the name **human being** applies to this body, which is like a constructed house, and to this soul, which dwells within the body. Together they are the two parts of the human being, and the human being is the totality composed of them.

Yet one of these two parts—the soul—is nobler. It is like the kernel, while the other part, the body, is like the husk.

From another perspective, the soul is like the tree and the body like its fruit. From yet another perspective, the soul is like the rider and the body like that which is ridden; the human being, consisting of both, is like the horseman.

For this reason, every human being needs truly to know himself. To attain this knowledge, he must examine himself from three perspectives.

The first is to examine the states of the body: what it is, how it is constituted, how its parts are composed and its organs arranged, and what qualities belong specifically to it apart from the soul.

The second is to examine the soul separated conceptually from the body: its powers, what it is, how it is, and what qualities belong specifically to it.

The third is to examine the two together and what proceeds from their combination: character traits, actions, motions, crafts, works, sounds, and other such things.

We shall begin by briefly discussing the conditions and qualities of the body so that they may serve as an indication of the soul and its conditions.

The conditions of the body are outward and manifest, imaginable and apprehended by the senses. The soul and its conditions, however, are absent from sensory perception. They are inward, hidden in the depths of the body and concealed from view, and are apprehended only through the intellect.

Know, O brothers, that what is witnessed in the conditions of the body points toward what is unseen in the conditions of the soul. The outward points toward the inward, the revealed toward the concealed, the manifest toward the hidden, and the sensible toward the intelligible.

We stated in the First Epistle that the body is composed of flesh, blood, bones, vessels, nerves, skin, and similar things. All of these are earthly bodies: dead, dark, divisible, changeable, and corruptible.

The substances of the soul, however, are heavenly, spiritual, rational, and luminous. They are neither heavy nor divisible nor corruptible. Rather, the soul is active and enduring, knowing and capable of apprehending the forms and realities of things.

On How the Body Is Composed, the Humours of the Body, and the Mixture of the Natural Qualities

We say:

Know—may God grant you success—that when the Exalted Creator created the body, fashioned it, breathed into it from His spirit, and gave it life, He then caused the soul to dwell within it and entrusted it with its affairs.

The foundation of the body's structure, the composition of its parts, and the arrangement of its organs may be compared to the construction of a city built from various materials—stones, clay, bricks, lime, sand, timber, beams, iron, and the like.

Its structure is made firm, its buildings raised high, its wall fortified, its streets laid out, its quarters divided, its gathering places adorned, its dwellings ordered, its treasuries filled, and its houses inhabited. Its roads are opened, its rivers caused to flow, its marketplaces established, its craftsmen set to work, its merchants seated within them, its king administering it, and its inhabitants serving it.

The explanation of this is as follows.

When God, exalted is He, willed to compose the body, He first brought into being **four simple natures**, whose powers oppose one another and one of which may dominate another.

Then He joined each pair together and made from them **four elements**, composed of paired natures and harmonious powers. From these four elements He laid the foundation of the structure of the body.

He then began its construction from **four humours**, whose natures oppose one another but whose powers are proportioned, and which are compounds derived from the fundamental elements.

He gathered these four humours together and created from them **nine substances of differing forms**, which are the supports of its structure.

He then joined them together and arranged them one upon another as **ten connected layers**, properly ordered.

He supported them and raised them upon **two hundred and forty-eight columns**, paired and of proportionate stature.

He fastened them, stretched their cords, and bound their joints with **seven hundred and fifty bonds**, extended around them and wrapped about them like ropes, separating and securing them lest the structure be broken or diminished.

He apportioned its chambers, divided its treasuries, and placed within it **eleven inhabited storehouses**, filled with substances of varying kinds and colours.

He laid out its streets and opened its roads and gates. He made for it **three hundred and sixty pathways** for its inhabitants.

He caused springs to emerge from it and opened rivers within it—**three hundred and ninety streams** flowing in different directions.

He opened in its wall **twelve apertures**, arranged in pairs as passageways.

He perfected the construction of this city through the work of **seven cooperating craftsmen**, who are its servants, and appointed **five guards** to preserve its foundations.

Then He raised this city into the air upon the heads of **two columns**, caused it to move in **six directions** by means of **two wings**, and settled within it three communities: humans, jinn, and angels, making them its inhabitants.

He appointed over them one king, taught him the names of those within it, commanded him to preserve it, and instructed him in governing them.

He said, "Inform them of their names," and commanded them to obey him. Thus God Most High said:

"Prostrate yourselves before Adam," and the angels all prostrated themselves, except Iblis, who refused and was arrogant.

As for the four simple natures, they are:

heat, cold, moisture, and dryness.

The four elements, composed of paired natures and proportionate powers, are:

fire, air, water, and earth.

The four humours, opposed in nature, are:

yellow bile, blood, phlegm, and black bile.

The nine substances are:

bones, marrow, nerves, vessels, blood, flesh, skin, nails, and hair.

The ten layers are:

the head, neck, chest, abdomen, body cavity, waist, hips, thighs, lower legs, and feet.

The columns are the **bones**, and the bonds are the **nerves and sinews**.

The eleven treasuries are:

the brain, spinal marrow, lungs, heart, liver, spleen, gallbladder, stomach, intestines, kidneys, and testicles.

The streets and roadways are the **pulsating vessels**, while the rivers are the **veins**.

The twelve gates are:

the two eyes, the two ears, the two nostrils, the two lower passages, the two breasts, the mouth, and the navel.

The seven craftsmen are:

the attractive power, the retentive power, the digestive power, the expulsive power, the growth-producing power, the nutritive power, and the formative power.

As for the five senses, the text here names:

hearing, sight, taste, and touch.

[The source lists only four at this point although it calls them “five”; the sense of smell is explicitly included later in the epistle.]

The two columns are the **legs**, and the two wings are the **hands**.

The six directions are:

front, back, right, left, above, and below.

The three communities are the three souls, together with their powers and actions.

The **appetitive soul**, with its character traits and actions, is like the jinn.

The **animal soul**, with its character traits and senses, is like humanity.

The **rational soul**, with its discrimination and knowledge, is like the angels.

The single ruler is the **intellect**.

The Body Is Like a House and the Soul Like the Dweller in the House

Know that examining the essence of the soul while abstracting it from the body and conceiving it in itself, apart from the body, is exceedingly difficult even for those trained in philosophical disciplines—how much more so for those who are not.

But if a person examines the actions that become manifest through the body and considers the soul's states in relation to the body, the matter becomes easier. It becomes more accessible to students, clearer to thoughtful minds, and makes evident the nobility of the soul's substance.

We therefore wish to explain something of this and to give examples, so that the matter may be clearer in exposition, easier for beginners to understand, and more readily conceived in the thoughts of those who reflect.

Know that this body in relation to the soul is like a **house in relation to its inhabitant**.

The house has been built and its construction perfected. Its rooms have been divided, its treasuries filled, its roof completed, its doors opened, its curtains hung, and everything its master requires has been prepared within it: carpets, vessels, furnishings, goods, and everything else, in the fullest, most complete, and most skilful manner.

The two legs, upon which the body stands, are like the **foundations of the house**.

The head at the top of the body is like the **upper chamber of the house**.

The back is like the **rear of the house**, and the face at the front is like the **front of the house**.

The neck and its length are like the **portico**.

The opening of the throat and the passage of the voice through it are like the **entrance corridor**.

The chest in the middle of the body is like the **courtyard**, and the receptacles within the chest are like the **rooms and storehouses** of the house.

The lungs, because of their coolness, are like the **summer room**.

The nasal passage and the movement of breath through the throat resemble the **ventilation structures** of a house.

The heart, with its innate heat, is like the **winter room**.

The stomach and the cooking of food within it are like the **kitchen**.

The liver and the production of blood there are like the **storehouse of drink**.

The pathways of the vessels and the flow of blood and pulse through the limbs are like the **passageways of the house**.

The spleen, where the sediment of the blood gathers, is like a **storeroom for household goods**.

The gallbladder, with the sharpness of the yellow bile it contains, is like the **armoury**.

The body cavity and the membranes within it are like certain enclosed chambers of the house.

The intestines and the waste of food within them are like the **privy**.

The bladder and the urine collected within it are like the **urinal**, while the two lower passages are like the **drains of the house**.

The bones, upon which the body stands, are like the **walls**.

The nerves stretched across the joints are like the **beams and crosspieces resting upon the walls**.

The flesh filling the spaces among the bones and nerves is like **mortar**.

The ribs are like the **columns of the house**.

The cavities inside the bones are like **boxes and drawers**, and the marrow within them is like **precious objects and goods stored inside drawers**.

The openings at their ends are like **windows in the upper rooms**.

The body's breath is like **smoke**.

The middle of the brain is like the **great hall**.

The two eyeballs are like a **chamber of display**, and the membranes between them like **curtains**.

The mouth is like the **door of the house**.

The nose is like an opening in that door.

The lips are like the **two leaves of the door**.

The teeth are like its **railing or barrier**.

The tongue is like the **doorkeeper**.

The intellect in the middle of the brain is like the **king seated in the central court and audience chamber**.

The inner senses are like his **companions and courtiers**, and the outward senses like his **soldiers and scouts**.

The eyes are like **watchmen**.

The ears are like **receivers of reports**.

The hands are like **servants**, and the fingers like **craftsmen**.

In general, there is no organ of the body that does not have an analogue among the functions and furnishings of the master of a house.

From another perspective, this body in relation to the soul resembles the **workshop of a craftsman**.

All the organs of the body are to the soul like the craftsman's tools within his workshop.

Through each bodily organ, the soul displays different kinds of actions and performs different kinds of work, just as a craftsman performs different tasks and motions with each of his tools.

A carpenter cuts with the axe, saws with the saw, bores with the drill, files with the file, and chisels with the chisel.

Likewise a blacksmith blows with the bellows, grasps with the tongs, and beats metal with the hammer.

The same applies to all craftsmen: each performs different works and movements using different tools.

So too with the soul.

It sees with the two eyes, hears with the two ears, smells with the nostrils, tastes with the tongue, speaks with the lips and tongue, touches with the hands, performs crafts with the fingers, walks with the legs, kneels upon the knees, sits upon the buttocks, sleeps upon the two sides, rests against the back, and carries burdens upon the shoulders.

It reflects upon things known by means of the middle of the brain, produces sound through the throat, inhales air through the nasal passages, cuts food with the teeth, and swallows it through the oesophagus.

And similarly with the remaining organs.

In general, there is no organ in the body through which the soul does not perform some kind of action and some variety of work.

From yet another perspective, this body, in relation to the soul dwelling within it, resembles an **inhabited city filled with its people and familiar to its residents**.

The states of the body resemble the states of a city, and the activities of the soul resemble the activities of the inhabitants within that city.

The body has organs and joints corresponding to the **districts of a city**.

Within those organs and joints are receptacles and channels corresponding to the **houses within those districts**.

Within those receptacles and channels are membranes and coverings corresponding to **rooms inside houses and shops in marketplaces**.

The organs and joints corresponding to city districts include the head and all it contains, the chest and all it encloses, the abdomen and all it holds, and the legs and the rest of the body.

The receptacles and channels corresponding to the houses within the districts are the brain, heart, lungs, spleen, gallbladder, stomach, bowels, intestines, kidneys, and blood vessels.

The membranes and coverings corresponding to rooms within houses and shops within marketplaces include the cavities in the brain and lungs, the cavities of the heart and bones, and similar structures.

Chapter

Know further that within this soul dwelling in the body are **natural powers and innate dispositions**, spread throughout the body's organs.

These resemble the tribes and peoples inhabiting the various quarters of a city.

Those powers and dispositions perform actions and movements throughout the vessels of the body and the channels of its joints, resembling the actions of the inhabitants of a city in their homes, their movements along the streets, and their work in the marketplaces.

The natural powers and innate dispositions corresponding to these tribes and peoples comprise three classes.

Among them are the powers of the **vegetative soul**, its tendencies, appetites, virtues, and vices. Its dwelling is the liver, and its actions flow through the pulsating vessels toward the extremities of the body.

Among them also are the powers of the **rational soul**, its acts of discrimination, its knowledge, its virtues, and its vices. Its dwelling is the brain, and its actions flow through the nerves toward the various extremities of the body.

[At this point the transmitted text refers to “three” souls but explicitly describes only the vegetative and rational in this particular passage. The animal soul has already been named immediately above and is discussed throughout what follows.]

Know that these three souls are not separate entities divided from one another. Rather, they are all like **branches issuing from a single root and joined in one essence**.

They are like three branches growing from a single tree, with many twigs branching from each branch and many leaves and fruits growing from each twig.

Or they are like one spring from which three rivers flow, each river dividing into numerous channels and each channel into numerous streams.

Or they are like one tribe splitting into three peoples, each people into several clans, and each clan into several families and households.

Or they are like a single man practising three crafts and therefore being called by three names. If he masters all three, he may be called a **blacksmith, carpenter, and builder**.

Likewise a man who reads, writes, and teaches may be called **reader, writer, and teacher**, since these names are applied to an agent according to the actions, movements, crafts, and works appearing from him.

So it is with the soul.

The soul is **one in essence**, and these different names are applied to it according to the actions manifested through it.

When it performs nourishment and growth in the body, it is called the **growing or vegetative soul**.

When it produces sensation and locomotion in the body, it is called the **animal soul**.

When it performs thought and discrimination, it is called the **rational soul**.

Know also that every organ of the body possesses a power of the soul specifically assigned to it. That power governs the organ and performs through it actions different from those performed by another power through another organ.

That power may therefore be called the **soul of that particular organ**.

For example, the visual power is called the soul of the eye; the auditory power the soul of the ear; the gustatory power the soul of the tongue; and the olfactory power the soul of the nose.

The same applies to all the other organs and the powers that govern them and act through them.

Know further that these three souls are like genera, their powers like species, and the actions of those powers like individuals.

The powers corresponding to species are **twenty-five kinds**:

four are simple and resemble rulers;

seven cooperate and resemble craftsmen and assistants;

five resemble those who bring merchandise into the city;

three are receivers or intermediaries and resemble servants;

three resemble lords;

and three resemble princes.

The actions of these powers, which correspond to individual things, are exceedingly numerous and known in full only to God.

But we shall mention some of them as an indication of the rest.

Some of the actions of these powers resemble the actions of nobles, chiefs, and rulers in a city.

Some resemble the actions of merchants, sellers, and those who import merchandise.

Some resemble the actions of brigands and corrupters within the city.

Some resemble the actions of the sovereign, soldiers, and fighters.

Some resemble the actions of judges, trustworthy arbiters, and peacemakers.

Some resemble the actions of children, servants, women, and fools.

Some resemble the actions of devils, youths, the ignorant, and the foolish.

Some resemble the actions of scholars, jurists, and people of religion.

To explain this in detail:

The **four simple powers**, which resemble rulers, are the powers of the vegetative soul:

heat, cold, moisture, and dryness.

Upon these depend the body's states of soundness and corruption.

When the actions of these powers in the body's organs are balanced and equal, and the condition of the body is upright in health and well-being, they resemble the actions of princes, nobles, and chiefs who are the supports and leaders of a city and through whom the city's affairs, prosperity, and continuing order are maintained.

When food and drink enter the body and each of these powers takes from the nourishment that which is appropriate to it in the proper manner, their actions resemble the inhabitants of a city taking and giving, buying and selling, and dealing justly with one another.

When their actions occur improperly, however, they resemble the inhabitants of a city quarrelling among themselves, disputing over demands, and wronging one another in their dealings.

The discriminating powers that distribute to each organ the nourishment appropriate to it, so that the powers remain balanced and the humours within the bodily structure remain proportionate, resemble **judges, just arbiters, and peacemakers** who reconcile the people of a city.

When these powers become agitated, hostile to one another, and bring sickness and disease upon the body, their actions resemble those of **brigands and factional partisans** who rise up, incite sedition, fight one another, burn the marketplaces, destroy houses, plunder wealth, and spread corruption through the city.

When medicines and medicinal drinks enter the body and the excess humours are expelled, their actions resemble those of the **sovereign and his soldiers** when they fight the brigands, suppress disorder, seize the troublemakers, punish them, and expel them from the city.

When the excess humours have left the body, disease disappears, and the body's condition is restored after sickness, their actions resemble those of the leaders of a city after reconciliation: they exchange gifts, repair what the brigands have damaged, and rebuild what was destroyed.

As for the powers resembling **lords**, these are:

the appetitive power,

the irascible power,

and the rational power.

If the actions of the appetitive power in the organs are not ruled and restrained by the irascible power, they resemble the conduct—according to the social analogy employed by the authors—of children and fools who are not disciplined by those charged with governing them.

If the irascible power is not ruled and restrained by the rational power, its actions resemble those of devils, reckless youths, ignorant people, and fools when sensible elders do not govern and restrain them.

If the rational power itself is not governed and restrained by the **intellect**, its actions resemble those of scholars and reciters when they dispute over the rulings of religion, disagree about them, and divide into many doctrines and opinions because no just imam among the successors of the prophets governs and restrains them.

The **five powers** resembling those who gather and bring merchandise into the city are the **five senses**.

The auditory power apprehends sounds, and its pathway is through the two ears.

The visual power apprehends lights, colours, and shapes, and its pathway is through the two eyes.

The gustatory power has its pathway through the tongue.

The olfactory power apprehends smells, and its pathway is through the two nostrils.

The tactile power apprehends roughness and smoothness, hardness and softness, cold, moisture, and dryness. Its pathway is through the nerves and throughout the whole body.

The actions of these powers consist in apprehending the forms of sensible things outside the body and carrying them to the **imaginative faculty situated at the front of the brain**.

They resemble the activities of agents and importers who carry goods and necessities from surrounding regions into a city and present them to the merchants.

The **three receiving powers**, which are like merchants and sellers, are:

the **imaginative faculty**, whose dwelling is the front of the brain;

the **thinking faculty**, whose dwelling is the middle of the brain;

and the **retentive or memory faculty**, whose dwelling is the rear of the brain.

The imaginative faculty receives the impressions of sensible things from the senses and passes them to the thinking faculty. Its actions resemble those of brokers and sellers who operate in the open spaces and marketplaces of a city.

The thinking faculty receives the impressions of sensible things, discriminates among them, distinguishes some from others, and passes them to the retentive faculty, whose dwelling is the rear of the brain.

Its actions resemble those of merchants who purchase goods and carry them to houses, shops, and warehouses.

The retentive faculty receives the impressions of things from the thinking faculty, preserves them, and holds them until the time of recollection.

Its actions resemble those of **treasurers, agents, warehouse keepers, and those like them**.

The three powers that resemble princes are the irascible, appetitive, and rational powers, which we have already explained.

The **seven cooperating powers**, whose actions in the organs resemble the activities of craftsmen in the city's marketplaces, are:

the attractive,

retentive,

digestive,

expulsive,

nutritive,

formative,

and growth-producing powers.

These powers serve and assist one another, just as apprentices serve master craftsmen and hired labourers, and as craftsmen cooperate with one another in a marketplace.

Thus blacksmiths cooperate with carpenters, carpenters with builders, cotton-carders with beaters, beaters with spinners, spinners with weavers, and weavers with tailors, and similarly in other crafts.

Each prepares something for the craft of the next and hands it over.

The same applies to the actions of these powers within the organs of the body and their cooperation with one another.

The function of the **attractive power** is to draw food and drink toward the stomach, to draw the chyle from the stomach toward the liver, to draw blood from the liver into the vessels, and from the vessels toward the extremities of the body.

The function of the **retentive power** is to hold within an organ the humours that reach it.

The function of the **digestive power** is to mature that humour and prepare it for the nutritive power.

The function of the **expulsive power** is to drive away from an organ those humours that are unsuitable for it and send them toward another organ.

The function of the **growth-producing power** is to take material and increase the dimensions of an organ.

The function of the **formative power** is to take what remains from that material and fashion from it another being of the same kind. This power is particularly associated with the womb.

These seven powers perform many activities throughout the organs of the body. In each organ they practise forms of work different from those in every other organ.

Their activities resemble those of the craftsmen in a city's markets. We shall mention some of them as indications of the rest.

Their actions in the **stomach**—drawing food and drink toward it, retaining them, digesting them, and cooking them through innate heat—resemble the work of **bakers and cooks** in the city's marketplaces.

After the chyle has been cooked in the stomach, their actions in refining it, extracting its subtle components—taste, colour, smell, sweetness, and fatness—distinguishing them, sending the refined portion to the liver, and sending its sediment to the intestines resemble those who extract **sesame oil from fruits and seeds, oils from plants, and butter and clarified butter from animal milk**.

Their actions in the **liver**, cooking the refined chyle a second time until it matures and becomes crimson blood, then refining and separating it—sending the sediment of the blood toward the spleen, the subtle burnt portion toward the gallbladder, the thin watery portion toward the bladder, and the balanced pure portion toward the heart—resemble the work of makers of syrups, molasses, vinegar preparations, and similar goods in the city's markets.

Their actions in the **heart**, subtilising the blood a third time, purifying it, and sending it through the vessels resemble the work of those who produce **rosewater, distil vinegar, and distil subtle liquids**.

Their actions in the **brain**, subtilising the blood that rises to it until it becomes a fine, spiritual moisture—such as that which passes into the organs of the ears, eyes, nostrils, and tongue—and producing the vapours associated with sensory activity, resemble the actions of those who make delicate oils such as **violet oil, water-lily oil, olive oil**, and similar substances.

Their actions in driving the coarse residue of the chyle from the stomach into the bowels and intestines and expelling it from the body resemble the work of **street cleaners and those who remove refuse and manure**.

Their actions in conducting the blood through the veins to all the extremities of the body resemble the activities of those who dig **rivers, wells, and canals** so that water may flow among the houses of a city.

Their actions in coagulating blood and drying matter until it becomes flesh, fat, bone, and similar tissues resemble those craftsmen who thicken and solidify liquids, confectioners, dough-makers, and others like them.

Their actions in drying and hardening matter until it becomes **bone** resemble the actions of those who fire **bricks, pottery, and glass**.

Their actions in straightening and fashioning the bones of the lower legs, thighs, arms, and similar parts resemble those of **carpenters who shape columns and the legs of beds**.

Their actions in constructing the joints of the knees, thighs, arms, and fingers resemble the fitting together of the articulated parts of **locks, boxes, and similar mechanisms**.

Their actions in joining the vertebrae of the back and neck and arranging the ribs resemble those of **shipbuilders and constructors of fitted frameworks**.

Their actions in fitting and arranging the bones of the skull resemble those of **coppersmiths who construct vessels and ewers from joined pieces**.

Their actions in creating, arranging, and setting the teeth resemble those of **stone-cutters and craftsmen who make the toothed components of wheels and mills**.

Their actions in creating the nerves, extending them, twisting them, and wrapping them around the organs resemble the actions of **spinners, rope-makers, and twisters of cord**.

Their actions in creating the skin and membranes resemble the work of **weavers and textile makers**.

Their actions in closing wounds and sores resemble the work of **menders, leather-stitchers, and tailors**.

Their actions in causing hair to grow upon the skin resemble the actions of **farmers and planters**.

Their actions in forming the nails resemble the work of those who make **hoes, shovels, spades, and similar tools**.

Their actions in creating the stomachs, intestines, and bowels resemble the work of those who manufacture **carpets, coarse cloth, and heavy textiles**.

Their actions in creating other bodily membranes resemble the actions of those who weave **cotton and linen garments**.

Their actions in creating the fine membranes of the eyes resemble the work of those who weave **delicate silk fabrics**.

Their actions in whitening the bones, reddening the flesh, lightening the fat, and blackening the hair resemble those of **dyers, decorators, and painters**.

Their actions in the **womb**, fashioning the embryo, and in forming chicks within eggs resemble the actions of **image-makers, painters, sculptors, and makers of figures**.

If someone among the physicians and natural philosophers says, “All of these are actions of Nature,” let him know that the ancients said that **Nature is an action of the soul**.

And if someone among the followers of revealed law says, “All these belong to the Creator and Originator, who does whatever He wills and forms things however He wills,” let him also know that the soul itself is among the works of the Creator, blessed and exalted is He.

We have described these actions and attributed them to the soul because the Exalted Creator does not directly perform actions through His own essence; rather, things proceed from Him by way of **command**.

We have also done so so that the human being may awaken from the sleep of heedlessness and the slumber of ignorance, reflect upon himself, witness these astonishing secrets, and know that the Maker is knowing and wise and that what has been made is the wondrous craftsmanship of that Wise One.

For through a perfectly ordered and masterfully fashioned work, the wisdom of the wise maker becomes manifest and may be inferred.

As God Most High says:

“And in yourselves—will you not then see?”

All existing things are signs through which God's wisdom and craftsmanship become manifest, for His wisdom and workmanship are revealed through perfectly fashioned things and well-ordered existents.

Within yourselves are God's signs, His secrets, His works, and His wonders.

Will you not see, O heedless ones?

Will you not look, O ignorant ones?

In general, this body together with the soul, the diffusion of the soul's powers throughout all its inward and outward organs, the manifestation of its actions, the many varieties of its motions through the channels of its joints, and its senses operating through the openings of the head while a person is awake resembles a **prosperous and inhabited city familiar to its residents**.

Its gates are open.

Its roads are travelled.

Its merchants have taken their places.

Its craftsmen are at work.

Its inhabitants go about earning their livelihoods.

Its animals move about.

And the sounds of its living creatures may be heard.

The state of the body during **sleep**, when the senses become quiet and its movements cease, resembles the state of that city at night, when its marketplaces are closed, its craftsmen cease working, its roads become empty, its people sleep, their movements cease, and their voices fall silent.

The state of the body when the **soul departs from it** resembles the condition of that city when its inhabitants have abandoned it and it has become empty of residents, its neighbours have departed, and it remains a ruin.

It becomes a dwelling place for wild beasts and owls.

Then its walls fall down, its roofs collapse, and it becomes heaps and mounds in which nothing can be distinguished except stones, bricks, clay, and dust.

So too is the condition of the body at **death**, which is the soul's separation from it—a separation after which there is no reunion of the former kind.

How excellent is the saying:

No morning dawns upon God's servants without an angel calling out each day:
“Give birth for death, and build for ruin.”

Then the body changes, swells, and becomes a dwelling place for worms, flies, and ants.

Afterward it decays and becomes dust, with nothing distinguishable except the bones and sinews, appearing like the stones and bricks of that ruined city.

“From it We created you, into it We shall return you, and from it We shall bring you forth once again.”

To Him the whole affair returns.

So worship Him and place your trust in Him.

Your Lord is not unaware of what you do.

May God grant us, you, and all our brothers soundness and right guidance. May He guide you and us along the path of righteousness.

He is compassionate and merciful toward His servants.

Here ends the Epistle on the Composition of the Body.

It is followed by the Epistle on the Senses and the Sensible.

Epistle 24

On the Senses and the Sensible

The Tenth Epistle of the Natural and Physical Sciences

On the Refinement of the Soul and the Improvement of Character

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Chapter 1: The Three Ways by Which Human Beings Acquire Knowledge

Know, O righteous and compassionate brother—may God strengthen you and us with a spirit from Him—that, having completed our discussion of the composition of the human body and explained that the human being is a small world, that the structure of his body resembles a virtuous city, and that his soul resembles a king within that city, we now wish in this epistle to discuss something concerning the objects of knowledge.

We say:

Human knowledge of things is acquired through **three paths**.

The first is the path of the **five senses**. This is the first of the paths and is the source of the greater part of human knowledge. Knowledge through it begins in early childhood. All human beings share in it, and the animals share it with them.

The second is the path of the **intellect**, through which the human being is distinguished from all other animals. Knowledge through it arises after childhood, at the time of maturity.

The third is the path of **demonstration**, which belongs to certain scholars rather than to humanity generally. Knowledge through demonstration comes after the study of the mathematical, geometrical, and logical sciences.

We shall explain at the end of this epistle why the paths of knowledge are three.

For now, we wish to discuss the five senses and explain how the sensitive powers apprehend their sensible objects.

Before doing so, however, we ought to describe the sensible things themselves. All of these are bodily accidents through which a body becomes perceptible. We must also define their qualities, since these matters are clearer, more evident, and easier for beginning students to understand.

Afterward we shall discuss the soul and its sensitive powers, all of which are subtle spiritual matters, obscure and difficult for beginners in the sciences and in true knowledge to comprehend.

Know—may God grant you success—that since all sensible things are bodily accidents that enter into a body after it has become a body, we must first mention **body absolutely considered** and describe what makes it a body. We may then discuss the additional accidents that are qualities added to it after it is already a body.

We say that a body is a substance composed simply of **matter and form**.

The proof of this is the definition given by the learned:

A body is a thing possessing length, breadth, and depth.

The "thing" is the substance, which is the matter; while length, breadth, and depth are its forms.

It is through these qualities that a body is a body, not merely because it is a substance. For the soul and the intellect are also substances, yet they are not described as possessing length, breadth, and depth.

This, then, is one of the differences between **bodily substances** and **spiritual substances**.

Know further that every quality attributed to a body beyond length, breadth, and depth is an additional quality entering upon it after it has become a body. These are called **completing forms**.

Thus the philosophers say that a body is never without motion or rest, conjunction or separation; that it is dark or luminous, transparent or opaque, hot or cold, moist or dry, light or heavy, hard or soft, rough or smooth; and that it possesses taste, colour, smell, and other similar qualities.

All of these are accidents entering into the body and added to it after its existence as a body, completing and perfecting it.

We must therefore describe these accidents and qualities one by one.

All these accidents and qualities are completing forms of bodies, bringing them toward the perfection appropriate to them. Yet some are more proper to body than others.

Rest, for example, is more proper to body than motion; conjunction more proper than separation; darkness more proper than light; and place more proper than time.

That rest is more proper to body than motion may be understood as follows.

A body possesses six directions, yet it cannot move simultaneously in all six directions. Nor is its motion in any one direction, simply as a body, more appropriate than motion in another.

Rest is therefore more proper to it than motion.

As for certain bodies that are perpetually in motion, such as the celestial spheres and fire, their motion is an additional condition beyond simply being bodies.

We have explained in the Epistle on Matter that motion is a spiritual form entering upon and perfecting the body, whereas rest is the absence of that form.

As for conjunction and separation, of which it is said that body is never free from one or the other, this does not belong to body simply insofar as it is body, but rather to particular bodies insofar as they are individuated.

The body of the whole world does not separate from itself, nor does it join some other world, because there is only one world.

Conjunction and separation occur among individual animals, plants, minerals, and among portions of the elements beneath the sphere of the Moon.

When it is said that the stars "conjoin" and "separate," this is not literally so. Every star remains attached to its own sphere and to the degree in which it is located.

Their "conjunction" means that some of them become aligned with others upon a single line extending from our sight toward the outermost sphere.

When it is said that a body cannot exist without place, this is because the celestial spheres surround one another, and the surrounding body is therefore spoken of as the "place" of that which it surrounds.

We have already explained the disagreements among scholars concerning the nature of time and place in the Epistle on Matter.

Likewise, when it is said that a body cannot exist without time, this does not belong to the definition of body. Rather it follows from motion, for time is nothing other than the repeated motion of the celestial sphere in its revolutions, as we explained in the Epistle on Matter.

Nor is the statement that every body must be either dark or luminous a correct division.

Rather, some bodies are dark, some luminous, and some are neither luminous nor dark but **transparent**.

A dark body is one that casts a shadow.

A luminous body is one that has no shadow.

A transparent body is one that receives light at one time and darkness at another.

Know that, among the bodies of the world, according to this account, nothing casts a shadow except the **Earth and the Moon**.

The face of the Moon, however, is polished and receives and reflects light, whereas the surface of the Earth is not polished. Those knowledgeable in the science of the *Almagest* understand the truth of what we have said.

As for luminous bodies, there are only two kinds in the world: **the stars and the fire that is among us**.

The fire beneath the sphere of the Moon that is called the **aether** is not luminous. If it were luminous, it would prevent us from seeing the light of the stars, just as one of two lamps may obscure the light of the other when both lie upon the same line of sight and one is behind the other.

Transparent bodies include the celestial spheres, fire, air, water, and certain earthly substances such as crystal, ruby, glass, and similar things.

A transparent body has no natural colour.

A natural colour is one that remains attached to its body, such as the blackness of the eye, the whiteness of snow, the yellow of saffron, the red of safflower, and the green of plants.

An accidental colour is like the blue seen in the sky and in the depths of deep water.

God—mighty and exalted is He—made the blue of the sky and the green of vegetation beneficial to the sight of animals, for these two colours strengthen vision. Animals continually need to look toward the sky while travelling and toward vegetation in seeking their livelihood.

Heat in certain bodies results from the boiling and agitation of the portions of matter through actual motion.

Cold results from the stillness of those portions or the cessation of that agitation.

Moisture results from a mixture of moving parts with stationary parts.

Dryness results from all of the parts being in motion or all of them being at rest.

For this reason fire is hot and dry because all the portions of its matter are moving.

Earth is cold and dry because all the portions of its matter are at rest.

Water and air are moist because some of their portions are moving while others are at rest.

The stationary parts predominate in water, whereas the moving parts predominate in air. Thus air is hot and moist, while water is cold and moist.

As for heaviness and lightness, these arise because each of the universal bodies has a particular natural place in which it remains and from which it departs only through compulsion.

When released, it returns toward its proper place.

If something prevents it, a struggle occurs between the two.

If its tendency is toward the centre of the world it is called **heavy**.

If its tendency is toward the circumference it is called **light**.

We have explained this in the Epistle on Heaven and the World.

Hardness in some bodies results from the predominance of cold and dryness. We explained the nature of cold and dryness in the Epistle on Generation and Corruption.

Softness or yielding in other bodies results from the predominance of watery parts over earthy parts.

Roughness occurs when the portions upon the outer surface of a body are unevenly arranged, some protruding and others recessed, as in a file and similar objects.

Smoothness occurs when all those parts lie upon a single surface, as with the face of a mirror.

Having briefly discussed bodies, their accidents, and the sensible qualities present in them, let us now discuss the instruments of the five senses and the bodily locations through which the spiritual sensitive powers operate.

Chapter 2: The Five Senses, the Sensitive Powers, and the Sensible Objects

We first ask:

What are the five senses?

What are the sensitive powers?

What is sensation?

What is sensory perception?

And what are sensible objects?

The answer is as follows.

The **senses are bodily instruments**, and there are five of them:

the eye, the ear, the tongue, the nose, and the organ of touch.

Each of these is an organ of the body.

The **sensitive powers**, however, are spiritual and psychic powers, each of which is particularly associated with one bodily organ, as we shall explain.

The **sensible objects** are things apprehended through the senses.

Those apprehended through the senses are accidents residing in natural bodies. They affect the sensory organs and alter the qualitative balance of their constitutions.

Sensation is the alteration in the constitution of the sensory organ caused by direct contact with its sensible object.

Sensory perception is the sensitive power's awareness of the qualitative alteration that has occurred in the constitution of the sensory organ.

The visual power operates through the two eyes and is situated within the two pupils, in the crystalline humour.

The auditory power operates through the two ears and is situated in their auditory canals, toward the rear cavity of the brain.

The olfactory power operates through the two nostrils and is situated in the nasal passages toward the front cavity of the brain.

The gustatory power operates through the mouth and is situated in the moisture of the tongue.

The tactile power operates throughout the surface of the animal body wherever the skin is delicate. In the human being, however, it is especially evident in the fingertips, as it has been said:

“The fingertips are the judges of the body.”

Know that sensible objects comprise **five genera**.

The first genus consists of things apprehended by touch. They are ten:

heat, cold, moisture, dryness, roughness, smoothness, hardness, softness, lightness, and heaviness.

The second genus consists of the **tastes**, apprehended through taste. They are nine:

sweetness, bitterness, saltiness, fattiness, sourness, pungency, astringency, insipidity or freshness, and contraction.

The third genus consists of **odours**, apprehended through smell. They are of two basic kinds:

pleasant and foul.

The fourth genus consists of **sounds**, apprehended through hearing.

Sounds may be animal or non-animal.

Non-animal sounds may be natural or produced by instruments.

Animal sounds may be rational or non-rational.

Rational sounds may be meaningful or meaningless.

The fifth genus consists of **visible things**, apprehended through sight. They are ten:

lights, darknesses, colours, surfaces, bodies themselves, their shapes, their positions, their distances, their motions, and their rests.

Having briefly enumerated the genera of sensible things, we shall now explain how each sensitive power apprehends its proper objects.

We begin with the tactile power because its apprehension of its objects is the most bodily, and we shall conclude with the visual power because its apprehension of its objects is the most spiritual.

Chapter 3: How the Tactile Power Perceives Heat, Cold, and the Other Tangible Qualities

The constitution of an animal's body is at all times at some degree of heat and cold.

When another body comes into contact with it, that body must either be hotter than the animal's body, colder than it, or equal to it in this respect.

If it is hotter, it increases the body's heat upon contact.

If it is colder, it increases the body's coldness.

The tactile power becomes aware of this alteration and change and conveys its report to the **imaginative faculty**, whose dwelling is the front of the brain.

If the contacting body is exactly equal to the body's own constitution in heat and cold, it produces no change and has no effect upon it in this respect, and the power senses nothing of heat or cold.

Yet such a body will still normally be rougher or smoother, harder or softer, moister or drier, heavier or lighter.

It is rare to find two bodies completely equal in all of these qualities.

As for the perception of **hardness and softness**, whenever another body strikes or presses against the animal's body, one of the two must yield to the other.

If the other object yields, as when a finger is pressed into dough, the tactile power perceives its softness and carries this report to the imaginative faculty.

If the animal's body itself yields before the other, as when a finger is pressed against iron, the power perceives hardness and conveys that report to the imaginative faculty.

The perception of **roughness and smoothness** is as follows.

If the parts at the outer surface of a body are unevenly positioned, with some projecting and others recessed, the body is rough, provided that it is firm.

If all of the surface parts lie upon one plane, it is smooth.

When two smooth bodies meet, the two touching surfaces fit against one another without gaps between them.

If they are not smooth—or one of them is not smooth—they do not fit perfectly, because spaces remain between them.

When a hard, rough body touches the animal body, its protruding parts push portions of the skin inward, altering its surface. The tactile faculty perceives this change and reports it to the imaginative faculty.

When a smooth body touches it, its contact affects the surface differently, and the power perceives this alteration as smoothness.

These perceptions vary according to the constitution of the bodily organ.

A person may touch a cloth with his hand and find it soft, but rub that same cloth upon his cheek and find it rough, because the cheek is ordinarily softer and more delicate than the hand.

Likewise, something may feel rough against the hand but soft when rubbed against the foot, because the foot is rougher than the hand.

Similarly, when a person enters a bathhouse while chilled, he finds the first room warm. Yet when he leaves a hotter chamber and returns to that same room, he experiences it as cold, because the constitution of his body has changed.

Thus the tactile power's perception depends upon both the constitution of the body and the condition of the sensible object.

The power itself, however, does not change in its essence.

The perception of **moisture and dryness** occurs in this way:

when a dry body touches the body, it absorbs some of the body's moisture, and the tactile power perceives that change.

When a moist body touches it, it increases its moisture and dampness, and the power perceives the resulting alteration.

The perception of **heaviness and lightness** occurs in pushing, pulling, and carrying.

What counts as heavy or light also varies according to the strength of the body.

Some animals, such as ants, carry several times their own weight, while other animals are scarcely able to carry anything beyond the weight of their own bodies.

We explained the purpose and cause of this in the epistle in which we discussed the properties of animals.

Chapter 4: How the Powers of Taste and Smell Perceive Their Objects

The sensible objects of the **gustatory power** are tastes, of which there are nine:

sweetness, bitterness, saltiness, fattiness, sourness, pungency, astringency, freshness or insipidity, and contraction.

Taste occurs when the moisture of the tasted substance comes into contact with the moisture of the tongue and mixes with it.

The constitution of the tongue is thereby altered in accordance with the taste.

If the substance is sweet, the tongue's moisture acquires sweetness.

If bitter, bitterness.

If sour, sourness.

And likewise with the other tastes.

Sensation is therefore nothing more than the constitution of the sensing organ becoming qualitatively similar to the sensible object.

Sensory perception is nothing more than the soul's awareness of that alteration.

As for the **olfactory power** and its sensible objects, odours are fundamentally of two kinds: pleasant and foul.

Bodies possessing odour continually give off subtle vapours. These mix with the air in a subtle, spiritual manner, and the air acquires a quality corresponding to them.

If the odour is pleasant, the air becomes pleasant in quality.

If foul, it becomes foul.

An animal possessing lungs continually inhales air in order to temper the innate heat within the heart.

The air enters through the nostrils and reaches the nasal passages. The air there acquires the quality of the odorous vapour, and the olfactory power perceives the resulting change and conveys its report to the imaginative faculty.

If the smell is pleasant, the animal's nature takes pleasure in it.

If it is foul, the animal's nature dislikes it and recoils from it.

Animals differ, however, in which odours they enjoy or dislike, sometimes to the point of complete opposition.

Certain animals take pleasure in the smell of dung and carrion—such as pigs, beetles, flies, and similar creatures.

Others dislike fragrances that humans find pleasant.

It is said, for example, that if a dung beetle is buried among roses it becomes senseless and ceases moving, whereas if it is returned to dung it revives and moves again.

There are also people whose habits have made them comparable in this respect, such as those who continually work with refuse and filth.

It is related that a street cleaner once passed through the market of the perfumers and fainted so completely that people thought him dead.

A physician passed by, saw him, recognised his condition and the cause of his fainting, and ordered that dried excrement be brought, crushed, and placed near his nose. The man immediately sneezed and recovered consciousness.

Some sick persons also experience such reversals.

A person dominated by yellow bile, for example, may be harmed by the smell of musk yet enjoy the smell of clay.

These differences arise according to the constitution of bodies and according to the humour predominating in them.

These three powers—touch, taste, and smell—apprehend their sensible objects **bodily, through contact**.

Hearing and sight, however, apprehend their sensible objects in a more purely **spiritual manner**.

Chapter 5: How the Auditory Power Perceives Sound

The objects perceived by the auditory power are **sounds**.

Know that sounds are of two general kinds:

animal and non-animal.

Non-animal sounds may be either **natural** or **instrumental**.

Natural sounds include those of stone, iron, wood, thunder, wind, and other lifeless bodies.

Instrumental sounds include those of drums, trumpets, wind instruments, strings, and similar devices.

Sound arises when air is violently compressed or displaced between colliding bodies, and this movement strikes the air at rest within the organ of hearing.

There are many varieties of such sound.

Animal sounds are of two kinds:

rational and non-rational.

The non-rational are the cries and voices of non-speaking animals.

Rational sounds are the sounds of human beings.

Human vocal sounds are themselves of two kinds:

those that signify meaning and those that do not.

Meaningless vocal sounds include laughter and weeping and, in general, every sound that is not articulated into letters.

Meaningful sound consists of speech and utterances that can be divided into letters.

Such speech arises from the cutting and shaping of the voice by the parts of the mouth.

When the lips are joined in one way they produce the sound **b**; when joined in another, **m**, and so forth.

All sounds arise from an impact produced in the air through the collision or movement of bodies.

Because air is exceedingly subtle in its nature, light in substance, and its parts are quick to move, it penetrates among bodies.

When one body strikes another, the air between them is expelled violently. It pushes and undulates outward in all directions.

Its movement takes on a spherical form and expands, just as molten glass expands when air is blown into it, or as still water spreads outward when a stone is thrown into it and the disturbance travels toward the edges of the pond.

As that expanding disturbance becomes wider, its motion and undulation gradually weaken until they cease and disappear.

Any human being or other animal possessing ears who is sufficiently near the place of the sound is reached by this undulation of air.

The auditory power then perceives that motion and alteration.

Know further that every sound possesses its own **tone, configuration, and spiritual form**, distinct from every other sound.

Because of the nobility and subtlety of its substance, the air carries each sound in its own form and configuration and preserves it so that sounds do not merge together and lose their individual forms.

It conveys them to the furthest extent of their journey until they reach the auditory power, which then delivers them to the imaginative faculty.

This is the determination of the Mighty, the Knowing:

“He has made for you hearing, sight, and hearts; little thanks do you give.”

Chapter 6: How the Visual Power Perceives Visible Things

The sensible objects of the visual power are said to be ten:

lights, darknesses, colours, surfaces, bodies themselves, their shapes, positions, distances, motions, and states of rest.

Yet what is perceived **essentially and in itself** among these is primarily light and darkness.

Darkness is something that is seen, but nothing else is seen by means of darkness.

Light is both seen itself and is that by means of which other things are seen.

Next come colours.

Because colours exist only upon the surfaces of bodies, surfaces become visible through them.

Because surfaces exist only in bodies, bodies themselves become visible through their surfaces.

And since bodies are never without shapes, positions, dimensions, motions, and states of rest, all of these things become visible **accidentally**, rather than in themselves.

Know that light and darkness are, in a sense, **spiritual colours**, whereas black and white are bodily colours.

Light resembles whiteness, and darkness resembles blackness.

For whiteness stands out among the other colours just as all visible things become apparent in light.

Against blackness colours are difficult to distinguish, just as nothing is seen in darkness.

Know that light and darkness pass through transparent bodies as the spirit passes through the body, and they depart from them without requiring time.

When light passes through transparent bodies, it carries with it the colours of the bodies present before it, together with the qualities mentioned above, carrying them in a spiritual manner.

It preserves their configurations so that they do not intermingle and become confused, just as the air carries sounds in their particular forms, as we described above.

Light continues to carry these forms until they reach the visual power situated in the crystalline humour within the two eyes.

Know that the two pupils are themselves among transparent bodies and are like **two mirrors of the body**.

They consist of moist substances covered by transparent membranes, including what physicians call the corneal membrane. Those knowledgeable in medicine understand this principle.

When light passes through transparent bodies, carrying with it the colours of present objects, and reaches the two eyes, it enters them just as it enters other transparent bodies.

The crystalline humour becomes impressed by those colours, just as air becomes illuminated by light.

The visual faculty then becomes aware of this change and carries its report to the imaginative faculty, just as the other sensitive powers report the conditions of their sensible objects.

One who finds it strange that colours and the forms of bodies can be carried in this spiritual manner, or that air can similarly carry sounds, ought not deny this merely because he cannot imagine how it happens.

For the sensitive powers' reception of the **forms of sensible things** is still more astonishing and more spiritual.

We have explained how this occurs in the Epistle on Intellect and the Intelligible.

Many learned people have supposed that vision occurs through **two rays issuing from the eyes**, travelling through the air and transparent bodies, and reaching the visible objects.

This, however, is the opinion of one insufficiently trained in spiritual and natural matters.

If he were properly trained in them, the truth of what we have described would become clear to him.

Chapter 7: The Sensitive Powers Are Different Activities of a Single Soul

Know further that these sensitive powers are not **parts of the soul** in the same way that each sense organ is an organ and part of the body.

Rather, each of these powers is the **soul itself**, considered according to a particular action.

The different names are applied to it because its actions differ.

When it performs seeing, it is called the **visual power**.

When it performs hearing, it is called the **auditory power**.

When it performs tasting, it is called the **gustatory power**.

Likewise, when it produces growth in the body, it is called the **growth-producing soul**.

When it produces sensation and movement in the body, it is called the **animal soul**.

When it performs thought and discrimination, it is called the **rational soul**.

The same principle applies to all the other names given to the soul according to the diversity of its actions.

The diversity of its actions results from the diversity of the bodily organs.

The actions of craftsmen similarly vary according to the tools they employ.

The carpenter cuts with an axe and saws with a saw.

The blacksmith strikes with a hammer and files with a file.

The actions of all craftsmen vary within their crafts according to the variety of their instruments.

Likewise, the actions of the soul within the body vary according to the differences among the body's organs, because the organs of the body are to the soul like the **tools of a craftsman**.

Chapter 8: How the Impressions of Sensible Things Reach the Imaginative Faculty

We shall now explain how the effects of sensible things reach the **imaginative faculty**, whose pathway is in the front of the brain.

From the front of the brain extend delicate and soft nerves.

These connect with the roots of the sense organs. There they spread and are woven through the parts of the brain like a spider's web.

When the qualities of sensible things come into contact with the sense organs and alter their constitution, the effect of that alteration reaches the nerves originating in the front of the brain.

Thus all the impressions of sensible things gather together in the imaginative faculty.

They resemble the reports of messengers being collected by the keeper of the royal dispatches, who then conveys them all to the presence of the king.

The king reads them, understands their meanings, and hands them to his treasurer so that they may be preserved until they are needed.

Likewise, when the impressions of sensible things conveyed by the sensitive powers have gathered in the imaginative faculty, that faculty delivers them to the **thinking faculty**, whose dwelling is the middle of the brain.

The thinking faculty examines them, considers their meanings, discovers their realities, their harms and their benefits, and then passes them to the **retentive faculty**, which preserves them until the time of recollection.

Chapter 9: Things Perceived Essentially and Things Perceived Accidentally

Know that when a person sees a fruit from a distance, he may immediately know that it is sweet or bitter, pleasantly scented or foul, rough or smooth, hard or soft, hot or cold, moist or dry.

Yet he does not know all these qualities through sight itself.

Rather, he knows them through the **thinking faculty**, through previous perception, experience, and habitual association.

Likewise, whenever a person makes an error concerning one of these qualities, the error does not originate in the visual faculty.

It arises because the thinking faculty has judged without sufficient consideration or examination.

For example, when a person sees a **mirage** and supposes it to be water, the visual power has not made the mistake.

Rather, the thinking faculty judges that the coloured appearance before it is something that can be touched and tasted and that it is a flowing, moist body.

When the person approaches and does not find it to possess these qualities, the error of the judgement becomes apparent.

The proper procedure of the thinking faculty, when the imaginative faculty conveys to it the report of one sense, is therefore not to pronounce judgement immediately.

It should seek confirmation from another sense.

If the second sense bears witness to the first, the thinking faculty may then judge the thing to possess such-and-such qualities.

For example, suppose the visual faculty sees an apple made from camphor and painted the colour of a real apple.

It conveys its report to the imaginative faculty, which conveys it to the thinking faculty.

The thinking faculty ought not immediately judge that its taste, smell, and texture are those of a natural apple.

Rather, it should consult the gustatory, olfactory, and tactile powers.

When each reports what belongs to its own domain, the thinking faculty may then make its judgement correctly and without error.

For this reason the rational power is prevented from expressing, through the tongues of young children, judgements concerning the meanings of sensible things.

Their thinking faculty has not yet properly determined and distinguished those meanings.

After the years of nurture have passed and the child's power of discrimination develops, the tongue becomes capable of expression and explanation concerning the meanings of those sensible things that the senses have conveyed to the thinking faculty.

Chapter 10: The Nature of Pleasure, Pain, Fatigue, and Rest

Know that animals are continually subject to **pleasure, pain, fatigue, and rest**.

This is because animal bodies are constituted from a mixture of the four elemental natures and the four humours, which possess contrary qualities:

heat, cold, moisture, and dryness.

These are continually undergoing alteration and transformation through increase and decrease.

Sometimes this moves the constitution away from equilibrium because one humour or natural quality becomes excessive; at other times one of them becomes deficient.

Pleasure is the return of the constitution to equilibrium after it has departed from it.

For this reason an animal normally experiences pleasure only after some preceding pain or need.

Every sensible object that drives the constitution away from equilibrium is disliked by the relevant sense, and the sense experiences pain through it.

Every sensible object that restores the constitution to equilibrium is loved by the sense and gives it pleasure.

Know also that **rest** is remaining in health and equilibrium.

Fatigue is fluctuation between pain and pleasure.

Whoever studies this epistle and reflects upon what we have described concerning the states of the senses and sensible things will understand that all sensible objects are **bodily accidents** and forms residing in matter.

The soul apprehends them through its five sensitive powers by means of the bodily senses.

The senses are bodily instruments.

Sensation is the alteration of the constitution of those instruments through direct contact with sensible things.

Sensory perception is the sensitive powers' awareness of the changes occurring in those constitutions.

Chapter 11: The Five Spiritual Powers of the Human Soul

Know—may God grant you success—that the human soul possesses **five additional spiritual powers** whose operation differs from that of the five bodily sensitive powers.

They are:

the **imaginative power**,

the **thinking power**,

the **retentive power**,

the **rational or speaking power**,

and the **productive or crafting power**.

These powers apprehend the representations of objects of knowledge **spiritually and apart from their matter**.

The sensitive powers, by contrast, apprehend their objects only while those objects remain in matter, as we explained earlier.

The spiritual powers also transmit the representations of things to one another in a way unlike the sensitive powers.

Each sensitive power is restricted to a particular genus of sensible object.

The visual power does not apprehend sounds, tastes, odours, or tangible qualities. It apprehends only what belongs to sight.

The auditory power does not apprehend colours, tastes, odours, or tangible things; it apprehends sounds.

The same applies to smell, taste, and touch: none shares directly in the proper sensible object of another.

The five spiritual powers, however, **cooperate** with one another in apprehending the representations of objects of knowledge.

When the imaginative faculty receives all the representations of sensible things and accepts them into itself—just as wax receives the impression of a signet—it immediately passes them to the thinking faculty.

When the sensible objects themselves are no longer present before the senses, those representations remain depicted within the imaginative faculty in a spiritual form, just as the imprint of a seal remains upon wax after the seal has been removed.

They are forms separated from their material substrates.

The imaginative faculty then stands in relation to them as **matter**, while those representations stand in relation to it as **forms**.

The thinking faculty examines those representations within itself, beholds them, reflects upon them, distinguishes them, investigates their properties, their benefits, and their harms, and then passes them to the retentive faculty so that they may be preserved until recollection is required.

When the **rational or speaking faculty**, whose pathway is through the tongue, wishes to communicate these things, explain their meanings, or answer those who ask about its knowledge, it assigns to those meanings words composed of the letters of the alphabet.

These words function as signs indicating the meanings within the soul.

Through them it expresses those meanings to the auditory powers of those who are present.

But sounds remain in the air only long enough for the ears to receive their share of them, after which they disappear.

Divine wisdom therefore devised a means by which the meanings expressed in words could be **bound and preserved through the art of writing**.

The productive faculty forms written shapes for those words by means of pens and deposits them upon the surfaces of tablets and within sheets and scrolls.

Knowledge thereby remains bound and preserved:

as a benefit from those of the past to those who come afterward,

as a trace of the earlier generations for later generations,

and as speech from those who are present to those who are absent.

This is one of God's tremendous favours to humankind.

As He—mighty and exalted is He—said:

“Read in the name of your Lord who created;
created the human being from a clot.
Read, and your Lord is the Most Generous,
who taught by the pen,
taught the human being what he did not know.”

Chapter 12: Why Human Knowledge Is Acquired Through Three Paths

We now explain why human knowledge of things comes through **three paths**.

The human being is composed of a **bodily body** and a **spiritual soul**.

Through his spiritual soul he apprehends knowledge, just as through his bodily body he performs crafts.

The soul occupies a **middle rank among existing things**, as we explained in the Epistle on the Principles.

Some existents are higher and nobler than the substance of the soul:

the Creator—exalted is He—

the Intellect,

and forms separated from matter, who are the angels brought near to God.

Other existents are below the substance of the soul:

matter,

nature,

and bodies generally.

The soul's knowledge of things **below it in nobility** comes through the senses, through direct encounter, contact, mixture, and surrounding or encompassing them.

Its knowledge of what is **higher and nobler than itself** comes through **demonstration**, which compels the intellects to acknowledge the truth without bodily contact, direct encounter, or physical encompassing.

Its knowledge of **its own essence and substance** comes through the **intellect**.

For the relation of intellect to soul is like the relation of **light to sight**, and like the relation of a **mirror to one who looks into it**.

Just as sight cannot see things without light, and just as a human being cannot see his own face except by means of a mirror and looking into it, so the soul cannot behold its own essence except through the light of intellect.

Nor does it know the realities of existing things except by turning toward the intellect.

The soul becomes capable of looking toward intellect with the **eye of insight** when that eye has been opened.

The eye of insight is opened when the soul awakens from the sleep of heedlessness and the slumber of ignorance, looks with the bodily eye upon sensible things, reflects upon their meanings, and considers their conditions until it comes to know them with true knowledge.

For this reason we have placed the **Epistle on the Senses and the Sensible before the Epistle on Intellect and the Intelligible**.

Therefore consider, O brother, these things that we have described.

Reflect upon their meanings and realities.

You may thereby awaken from the sleep of heedlessness and the slumber of ignorance, and the eye of insight may open within you.

Then you will behold within your own essence the forms of things and discern within your substance the meanings of existents, for the soul is the mine of all the sciences and the dwelling place of wisdom.

As the excellent sage said:

All sciences exist potentially within the soul.
When the soul reflects upon itself and knows itself,
all those sciences become actual within it.

Here ends the Epistle on the Senses and the Sensible.

It is followed by the Epistle on the Fall of the Sperm-Drop.

Praise be to God for the abundance of His gifts, and blessings be upon the best of His prophets, Muhammad, master of the messengers and seal of the prophets, and upon the pure descendants among his children. Peace be upon them.

Epistle 25

On the Fall of the Sperm-Drop

The Eleventh Epistle of the Natural and Physical Sciences

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and He is sufficient. Peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Chapter 1: The Natural Duration of Gestation and the Conditions of the Seven Planets

Know, O righteous and compassionate brother—may God strengthen you and us with a spirit from Him—that divine wisdom has governed and providential care has determined for every individual and every event coming into being a known period of duration.

This period corresponds to the measure in which the celestial configurations pour forth their powers, each according to the receptivity of the individuals belonging to that species among the generated beings beneath the sphere of the Moon.

No one knows all the details of this except God—mighty and exalted is He—but we shall mention a portion of it as an indication of the rest.

Among these things is the duration of the human being within the womb, from the day the sperm-drop falls until the fetus emerges at birth. Its natural duration is **eight months, or 240 days**.

As for gestations longer or shorter than this, they occur for causes and reasons whose explanation would be lengthy.

We wish to describe the influences of the seven planets upon the sperm-drop and fetus, one by one and month by month, so that this may serve as an analogy for the other generated beings among animals, events, and existing things.

Before doing so, however, we must briefly discuss the conditions of the seven planets, because these constitute the causes that necessitate the differing conditions of generated things.

Know, O brother, that every planet has four conditions within its own sphere—that is, within its epicycle; four conditions in relation to the Sun; four conditions of its epicycle within its deferent sphere; and four conditions in relation to the sphere of the zodiac.

Thus there are sixteen generic conditions. When these are multiplied by their counterparts, there are 256 specific conditions; and when these are multiplied by the 360 degrees, there are 92,160 individual conditions.

As for their states within their epicycles, a planet may be ascending toward its highest point, descending from it, retrograde, or direct.

Its states in relation to the Sun are that it may be separating from it, opposing it, rising from it, or setting with it.

The conditions of the epicycles within the deferent spheres are that their centres may be at the apogee, at the perigee, ascending from perigee toward apogee, or descending from apogee toward perigee.

As for their conditions in the zodiac, they may be moving from depression toward exaltation or from exaltation toward depression; they may be in northern or southern signs, in oblique or straight signs; their latitude and inclination may be toward the south or north, or their latitude may be south while their inclination is north, or the reverse.

All these conditions produce greatly differing effects upon generated things according to differences of times, places, genera, and species. Only God—mighty and exalted—is able to enumerate them all.

Know, O brother—may God strengthen you and us with a spirit from Him—that all generated beings beneath the sphere of the Moon comprise three genera: **animals, plants, and minerals**.

These are the roots whose forms are preserved in matter. Their species are the divisions branching from them, while individuals are their particular manifestations continually undergoing generation, corruption, and flowing change.

Their matter consists of the four elements: fire, air, water, and earth.

Their active maker is the Universal Celestial Soul, whose powers permeate the circumference of the celestial spheres by permission of its Creator, Originator, and Fashioner. The planets are like tools employed by this maker.

Such is the determination of the Mighty, the Knowing.

Chapter 2: How the Actions of Nature and the Influences of Souls May Be Understood

Know, O brother—may God strengthen you and us with a spirit from Him—that when you enter the marketplaces of cities and look with the eyes of your head upon human craftsmen, observing how they practise their crafts upon the matter prepared for them—as we explained in the Epistle on the Practical Crafts—you should similarly consider the natural powers.

These natural powers are particular souls diffused from the Universal Celestial Soul. They permeate the four elements, which stand in relation to them as prepared matter.

The individuals of animals, plants, and minerals are their products, while the planets are like their tools.

Perhaps then, through the light of your intellect and the purity of the substance of your soul, you may perceive these spiritual powers permeating bodies and behold the manner in which they act in them, through them, and from them.

Then you may come to know your own soul, for it is one of these powers.

The four elements—the mothers within the celestial sphere—are like milk within a vessel. The movements of the planets around the circumference of the spheres are like churning, and the generated beings produced from the elements are like the butter gathered from their subtle parts.

When the elements have been churned by the movement of the celestial individuals and some portion of their subtle "butter" gathers and becomes an individual distinct from the simple elements, there is immediately connected to it a power from among the powers of the Universal Celestial Soul.

This occurs wherever that thing may be—on land, in the sea, in the air, or in fire—and at whatever time.

That power then becomes individuated and distinguished from the other powers because of its attachment to that particular material compound. At that point it is called a **particular soul**.

The compound itself may then be pointed to as an individual generated being, whether animal, plant, or mineral.

At the time and hour of its generation, some degree of the zodiac must necessarily be rising from the eastern horizon over the particular place in which that generated substance appears.

The celestial configuration and positions of the planets then have a certain arrangement of the sort represented by astrologers in tables concerning nativities, revolutions, and questions.

At that moment the spiritual powers of the remaining planets are added to that particular power. Together they attract toward that material substance those materials that resemble and correspond to it.

Its receptivity is according to the actions, dispositions, and properties inherent in the individuals belonging to its species, whether it is animal, plant, or mineral.

An example of this is the human sperm-drop.

It is the foam or refined essence of the man's blood. During sexual movement it gathers in the urethra after having been dispersed among the parts of the blood and throughout the body.

When it leaves the urethra, pours into the womb, and settles there, a power from among the powers of the vegetative soul immediately attaches itself to it.

That vegetative soul permeates all growing bodies. It is itself one of the powers of the natural soul pervading the four elements, and that natural soul in turn is a power diffused from the Universal Celestial Soul, which permeates all bodies existing within the world.

We explained this in the epistle concerning the philosophers' saying that **the human being is a small world and the world a great human being**.

Chapter 3: The Seven Powers of the Vegetative Soul and the First Three Months

Know, O brother, that the vegetative soul possesses seven active powers: the attractive, retentive, digestive, expulsive, nutritive, growth-producing, and formative powers.

Its first action when the sperm-drop settles within the womb is to attract menstrual blood toward the womb, retain it there, and digest it.

When this power has attracted the blood there, it surrounds the sperm-drop with it, just as the white of an egg surrounds its yolk.

The sperm-drop is then like the yolk, and the menstrual blood around it is like the egg-white.

The heat of the sperm warms the moisture of the blood and matures it. The moisture becomes heated and coagulates, becoming a blood-clot, just as fresh milk coagulates through rennet.

At this stage the spiritual powers of Saturn dominate the whole compound. They administer it, together with the powers of the other planets, for one month—thirty days, or 720 hours.

The books of astrological judgements explain this at length, but we shall mention enough of it to serve as a rule for what follows.

The administration of the sperm-drop begins with Saturn because Saturn occupies the highest sphere among the wandering planets, adjacent to the sphere of the fixed stars.

That sphere is the location of noble substances, the place from which spiritual powers descend, the mine of the holy soul, the resting place of good spirits, the source of intellectual powers, the abode of knowing and thinking angels, and the location of luminous transparent celestial bodies.

From there the angels descend with revelation, assistance, messages, goodness, and blessings. Toward there ascend righteous deeds, and toward there rise the spirits of believers and the souls of the virtuous among God's servants—the prophets, the truthful, the martyrs, and the righteous.

We explained this in the Epistle on Resurrection and the Rising.

Therefore awaken, O brother, from the sleep of heedlessness and the slumber of ignorance. Prepare for departure from this dwelling and provision yourself, for the best provision is piety.

Perhaps your soul may be granted success in ascending there and may be rewarded with the best reward, for from there it came into this world, and there shall be its return and resting place.

While Saturn governs for the completion of thirty days, the clot remains generally in its condition, neither thoroughly mixed nor blended, but coagulated and held together.

Materials continue flowing toward it because of the predominance of Saturn's coldness, stillness, and heaviness.

Then the second month begins.

Administration passes to Jupiter, whose sphere follows that of Saturn. Its spiritual powers dominate the clot.

Heat arises within it, warming and moderating its constitution. The two fluids mingle and the two mixtures become blended.

A movement like twitching and trembling arises in the compound, together with digestion and maturation.

It remains in this condition during Jupiter's administration until two months are completed.

Then the third month begins.

Administration passes to Mars, whose sphere follows Jupiter. The powers of Mars dominate the clot.

Its twitching and trembling intensify. Additional heat and warmth arise, and the clot becomes a red lump of flesh.

It continues changing from condition to condition in maturation and consolidation, while the spiritual powers of the other planets cooperate with Mars, until three months are completed.

Then begins the fourth month, and administration passes to the Sun, the ruler of the planets, queen of the celestial sphere and heart of the world, by permission of the Creator—exalted is His praise.

Chapter 4: The Condition of the Fetus in the Fourth Month

When the fourth month from the fall of the sperm-drop begins and administration passes to the Sun, the powers of the Sun's spiritual nature dominate the lump.

They breathe into it the spirit of life, and the animal soul begins to permeate it.

This is because the Sun is the ruler of the planets in the celestial sphere. Its soul is the spirit of the entire world.

It exercises dominion over the generated beings beneath the sphere of the Moon, particularly over animals possessing wombs and most especially over human offspring.

The Sun's body in the world is like the heart within the body, while the bodies of the remaining planets and celestial spheres are like the organs and joints of the body.

The diffusion of their spiritual powers through the world resembles the diffusion of the innate heat proceeding from the heart throughout the organs of the body.

The other planetary spiritual powers are like its armies, helpers, and servants—all by permission of the Creator.

Through the Sun's movement through the planetary bounds of the zodiac, the intensity of its illumination, and the diffusion of its spiritual powers, different forms of administration and influence descend every day, hour, degree, and minute from the celestial sphere into the world of generation and corruption.

No human understanding can fully comprehend these, but we shall mention something as an analogy and proof of what we have said.

When a sperm-drop falls into the womb, the Sun must necessarily occupy some degree of one of the zodiacal signs.

After four months, when the Sun reaches the end of the fourth sign, it has travelled one third of the celestial circuit.

During this journey it has passed through the natures of the fiery, earthy, airy, and watery signs.

At this point the elemental natures have become mixed within the constitution of the fetus. Its temperament has reached equilibrium, its form has been impressed, and its bodily structure has arisen.

The forms of the bones become apparent, the joints are assembled, the nerves wrap around the joints, the vessels extend through the flesh, and the bodily structure appears, partly formed and partly still unformed.

Chapter 5: The Condition of the Fetus in the Fifth Month

When the fifth month begins and the Sun enters the fifth sign, which is called the House of the Child and whose nature corresponds to the sign occupied at the fall of the sperm-drop, administration passes to Venus, the lesser benefic, the mistress of forms, decoration, and images.

When Venus's spiritual powers dominate the developing fetus, the creation is completed and the bodily structure perfected.

The forms of the organs become evident. The outlines of the eyes appear, the nostrils open, the mouth opens, the ears become perforated, the two lower passages are formed, and the joints become distinguished.

Yet the fetus remains folded and contracted, almost as though tied within a bundle. Its knees are drawn toward its chest, its elbows toward its waist, its head bent downward upon its breast and knees, and its hands resting against its cheeks.

It resembles someone sleeping in sadness.

If you could see it, O brother, you would pity it because of the narrowness of its place and weakness of its condition. Yet it does not perceive its hardship, through God's kindness and gentleness toward His creation.

Its navel is connected to the navel of its mother, from which it draws nourishment until birth.

The text states that if it is male, its face is oriented toward the mother's back, while if female, the reverse occurs.

Consider this action, O brother, and reflect upon what we have described.

Perhaps your soul may awaken from the sleep of heedlessness and the slumber of ignorance, so that you perceive with the eye of your heart this Wise Maker just as with the eyes of your head you perceive His works.

Many animals are born after roughly this period, including sheep, gazelles, and certain beasts.

Others delay birth until six, nine, ten, or twelve months, for purposes we have explained in the Epistle on Animals.

We shall later explain why human birth is delayed until the completion of eight months and why the fetus may remain within the womb into the ninth.

Chapter 6: The Condition of the Fetus from the Sixth to the Ninth Month

At the beginning of the sixth month, administration passes to Mercury. Its spiritual powers dominate the fetus.

At that time the fetus begins to move within the womb. It kicks with its feet, stretches out its hands, extends its limbs, becomes animated, and senses its surroundings.

It opens its mouth, moves its lips, breathes through its nostrils, and turns its tongue within its mouth.

At times it moves and at times becomes still; at times it sleeps and at times awakens.

It remains in this state until the completion of the sixth month.

Then begins the seventh month, and administration passes to the Moon.

The Moon's spiritual powers dominate the fetus. It then increases in size, its body grows plump, its stature becomes more upright, its organs strengthen, its joints harden, and its movement becomes stronger.

It senses the narrowness of its location and seeks movement and departure.

If birth is decreed at this time, according to the conditions described by astrology, and the fetus is complete, it may live, be raised, and attain an age.

If it remains until the eighth month, the Sun enters the House of Death, and administration returns to Saturn from the beginning.

Saturn's spiritual forces again dominate it. Heaviness and stillness come over the fetus, while cold, sleep, and lack of movement predominate.

If born during this month, the child is said by the authors to be slow in growth, heavy in movement, and short-lived, and it may even be stillborn.

When the ninth month begins, the Sun moves into the ninth sign, the House of Travel and Transition, and administration returns to Jupiter, the greater benefic.

Jupiter's spiritual powers dominate it. Its temperament is moderated, the spirit of life is strengthened, and the actions of the animal soul become manifest within the body.

During the eight preceding months, the Sun has passed twice through the four elemental triplicities—fire, water, air, and earth—and has travelled 240 degrees through the zodiac.

During this period the fetus's nature has twice received the spiritual powers descending from the planets.

There remains one further completion.

Four signs, or 120 degrees, remain before the Sun returns to the degree it occupied at the fall of the sperm-drop.

If the fetus emerges after eight months, it begins its worldly life with these 120 degrees remaining.

According to the scheme given in this epistle, each remaining degree corresponds to one year, producing the natural lifespan of 120 years.

The human being thereby completes a third reception of the natures of the zodiacal signs.

As for lives exceeding or falling short of this amount, the text attributes them to causes and reasons discussed elsewhere.

Generated beings beneath the sphere of the Moon begin from their most deficient and lowest states and gradually ascend toward greater completion and perfection.

This occurs through time because their natures cannot receive the effusion of the celestial individuals all at once, but only little by little and gradually, just as an intelligent student receives knowledge gradually from a skilful teacher.

The effusions of the planets from the circumference of the spheres toward the centre of the Earth are continuous, but differ in kind and form according to the planets' positions, zodiacal relations, and bounds.

Divine wisdom and providential care have appointed to every generated being beneath the Moon a measured duration of existence and persistence, corresponding to a certain celestial cycle.

In the case of the human individual, the sperm-drop naturally requires four months before receiving the complete human form.

During this period the Sun travels four signs, or 120 degrees, passing once through the natures of the four triplicities.

Another four months remain until birth, during which the Sun travels another four signs and again passes through the four elemental natures.

There then remain 120 degrees before the Sun would return to its original position. These are correlated in the text with the 120 years of natural human life.

Chapter 7: Why the Bodily Structure Requires Four Months

Know, O brother, that the structure of the body and the arrangement of its organs are completed during these first four months.

The Sun, which is the spirit of the world, passes during this time through four signs of the triplicities and causes the natures of those signs to descend from the celestial circumference into the world of generation and corruption beneath the Moon.

The spiritual powers of the planets above the Earth thereby permeate the body's structure and become fixed in their centres.

Another reason is that during these four months the material required for constructing the body has gathered together.

On the day the sperm-drop falls, this material already exists within the woman, for nature ordinarily expels it during menstruation.

When the sperm-drop settles in the womb, it draws this material toward itself, just as the flame of a lamp draws oil through its wick and a magnet draws iron.

The blood surrounds the sperm-drop like the white of an egg surrounding the yolk.

The heat of the sperm warms and coagulates the blood, as rennet acts upon fresh milk.

This is the first operation associated with Saturn's spiritual powers, for one of Saturn's characteristics is the retention of form within matter, together with stillness and stability.

During the second four months, planetary influences are directed toward completing the structure and perfecting the organs, so that the powers of the animal soul may permeate them and manifest their actions.

When the bodily structure has been completed and its form consolidated, the powers of the animal soul permeate it.

The whole being is then transferred from the womb into the spaciousness of this world.

It undergoes another period of approximately four years in which its structure is further strengthened and its sensory organs learn to apprehend their objects.

Thereafter the rational power begins to operate more fully, and the child's tongue becomes capable of expressing and distinguishing the meanings conveyed by the senses.

Chapter 8: Why These Operations Require Time

Know, O brother, that the planets cannot accomplish all these operations and influences within only two or three months.

We shall give an example from human craftsmanship so that the operations of nature may be more easily conceived.

When a builder wishes to construct a house, he first directs his attention for a certain period toward laying the foundations, raising the walls, erecting the columns, building the arches, and roofing the rooms.

This is the period in which the house is brought into being.

He then turns his attention toward completing it by hanging doors and windows, installing fixtures, finishing surfaces, plastering walls, decorating ceilings, and making ornamental designs.

After this remains the perfection of the house: it is furnished, curtains are hung, its storehouses are filled with possessions, and finally the master of the house dwells within it and enjoys it for a time.

In the same way proceeds the composition of the human body and its association with the soul, from the day the sperm-drop falls and the soul becomes connected with it until the body dies, the soul separates from it, and the body is buried in the earth.

This period corresponds, according to the authors' cosmological scheme, to one of the cycles of the celestial individuals.

Do not suppose, O brother, that the planets, spheres, and zodiacal signs whose actions we have described are tools by which the Creator Himself manufactures the human being.

Rather, in the authors' account they are tools of the Universal Celestial Soul.

This soul is an obedient servant of the Creator and is strengthened by the Universal Intellect, one of the angels brought near.

When you awaken from heedlessness, advance in divine knowledge, and become trained in the divine sciences, the authors say that the realities of these secrets will become clearer.

Chapter 9: How Planetary Influences Operate

Know, O brother, that the celestial individuals bear musical proportions to one another in three ways: through the proportions of their sizes, through the distances between their centres and between them and the four elements, and through the proportions of the speeds and slownesses of their motions.

When their conditions alter, the relations among them also alter.

Their effects upon generated things consequently differ, just as musical sounds and melodies differ according to the length and shortness, fineness and thickness of strings, and according to the speed or slowness of the movement of the plectrum.

The effects of music upon listeners likewise differ according to their dispositions, opinions, and characters.

In the same manner, according to this epistle, celestial effects differ according to their varying proportions.

Chapter 10: Bodily and Spiritual Recipients of Celestial Influence

Know, O brother—may God strengthen you and us with a spirit from Him—that all beings beneath the sphere of the Moon are disposed to receive planetary influences.

Yet because their substances differ, their receptivity also differs.

These recipients are numerous beyond enumeration, but they fall into two broad genera: bodily substances and spiritual substances.

The bodily substances include the four elements and the beings generated from them—minerals, plants, and animals.

The spiritual substances in this context are the souls of animals.

Chapter 11: The Particular Qualities Attributed to the Seven Planets

Know, O brother, that the varieties of planetary influence upon bodies are exceedingly numerous.

We have discussed some in the Epistle on Nature, some in the Epistle on Meteorological Phenomena, some in the Epistle on Animals, and some in the Epistle on Cycles and Revolutions.

Here we shall discuss especially those influences which, according to this system, concern the human being, both the bodily temperament and the character of the soul.

The authors regard the differing dispositions of souls as among the most remarkable and subtle of planetary influences.

Saturn

The Creator, according to the epistle, appointed Saturn as the planet of stability and persistence.

Its spiritual power causes forms to remain fixed in matter. Without such a stabilising principle, no form would remain in matter even for the blink of an eye.

Saturn governs the first month from the fall of the sperm-drop.

If Saturn is free from harmful conditions, the sperm is said to remain safe from injury and the pregnant woman likewise enjoys greater safety.

If Saturn is ascending, direct, and favourably situated, the pregnancy is described as light and comparatively free from distress.

Its particular condition and its relation to other planetary bounds are then used by the authors to infer various dispositions.

Jupiter

In the second month administration passes to Jupiter.

Jupiter is described as the planet of moderation and as a cause of healthy temperament, order, and harmony.

In human character it signifies intellect, understanding, discernment, knowledge, deliberation, religion, piety, God-consciousness, justice, fairness, chastity, asceticism, and similar virtues.

These are said to be qualities needed by lawgivers, religious leaders, imams, scholars, jurists, judges, worshippers, ascetics, and those who serve religious law.

If Jupiter is favourably situated, the material within the womb is said to acquire a receptivity for such qualities.

Different combinations with Saturn, Mars, Venus, or Mercury are then said to colour the way these traits manifest.

If Jupiter is adversely situated, the text says that the resulting person may be slow of understanding, little inclined toward reflection, and concerned primarily with immediate sensory matters and worldly livelihood.

Mars

The third month belongs to Mars.

Mars is described as a source of heat, warming, and maturation. In character it signifies courage, boldness, hardness, valour, resolution, pride, and similar traits required, according to the authors, by military commanders and warriors.

When favourably situated, Mars is said to produce receptivity for such characteristics.

Its combinations with Saturn, Jupiter, Venus, and Mercury modify them.

With Saturn they may appear as firmness, patience, deliberation, resentment, and persistence. With Jupiter they are moderated by intelligence, justice, and knowledge of when to advance.

With Venus they become connected with passions, rivalry, jealousy, and display, while with Mercury they are joined to cleverness, quickness, verbal ability, and strategising.

When Mars is adversely situated, the epistle associates it with cowardice, fear, humiliation, and low ambition.

The Sun

The fourth month belongs to the Sun, described as the greater luminary, heart of the celestial sphere, source of light, and seat of the spirit of the world.

In human character it signifies kingship, leadership, greatness of soul, high aspiration, authority, majesty, strength, government, and administration.

A favourable Sun is said to establish within the developing person a receptivity for leadership, dignity, and high aspiration.

When combined with Saturn, these qualities become firmness, strength, patience, depth, perseverance, and decisiveness.

When combined with Jupiter, the authors regard the combination as potentially joining royal and prophetic virtues, divine knowledge, and noble character.

The text then enters into its own astrological theory regarding exceptional configurations at the beginnings of cosmic cycles.

When the Sun is in less favourable conditions, the authors associate it with reduced ambition and diminished receptivity to noble qualities.

Venus

The fifth month belongs to Venus.

Venus signifies forms and images, grace, beauty, ornament, charm, pleasure, joy, desire, and delight.

If favourably situated, it is said to instil receptivity toward these characteristics.

The text then gives detailed physical descriptions associated with different zodiacal bounds of Venus, including complexion, hair, eyes, face, limbs, build, and general appearance.

When joined with Saturn, Venus is said to produce constancy in affection, loyalty, patience, and fidelity.

When joined with Jupiter, it is associated with good temperament, fairness, pleasant companionship, sound conduct, and sometimes refinement and correct belief.

Mercury

The sixth month belongs to Mercury, lord of knowledge and understanding.

Mercury signifies knowledge, learning, perception, literature, wisdom, movement, crafts, speech, explanation, eloquence, discernment, intelligence, reading, melody, training, and philosophy.

When favourably situated, it is said to instil receptivity toward knowledge, intellectual inquiry, and eloquence.

With Saturn it produces, in the authors' scheme, deep and subtle thought but sometimes difficulty in verbal expression.

With Jupiter it directs attention toward religion, law, exhortation, justice, truth, resurrection, and the hereafter.

With Mars it may produce argumentation, disputation, rapid speech, quick responses, and the capacities associated with poets, orators, judges, and debaters.

With Venus it turns speech toward descriptions of worldly beauty, pleasure, poetry, singing, melodies, rhythm, and harmonious movement.

When adversely situated, Mercury is associated in the source with muteness, silence, dullness, or impaired understanding.

The Moon

In the seventh month administration reaches the Moon, the lesser luminary.

The Moon is described as a mediator between the upper and lower worlds, receiving the effusions of the higher planets and transmitting them to the lower world.

If it is ascending, increasing in light, swift in motion, and free from harmful influences, the fetus is said to become receptive to the other planetary influences according to the Moon's condition.

The source then describes a range of combinations.

With Mercury it associates changeability, diversity of temperament, movement among opinions and occupations, and instability.

With Saturn it gives the opposite tendency—greater stability and resistance to change.

With Venus, the text uses the gender concepts of its own period to describe a mixture of traits it labels masculine and feminine.

With Mars it associates outwardly ordinary behaviour combined with a more martial temperament.

With Jupiter it associates moderation between extremes in worldly and religious affairs.

If birth occurs in the seventh month, the authors say that the child may survive.

If the fetus remains into the eighth month, Saturn again takes over while the Sun enters the eighth sign, called the House of Death; hence the source regards eighth-month birth as unfavourable.

With the ninth month Jupiter's administration returns.

Chapter 12: Why the Fetus Remains in the Womb

From what has been said it is clear, according to the epistle, that the fetus remains in the womb so that the bodily structure may be completed, the form perfected, and the celestial powers fully received.

If this perfection could occur in one day, the fetus would not remain there for two. If it could occur in two months, it would not remain longer.

Every rational person knows that one born with an incomplete structure and imperfect form cannot fully benefit from the pleasures and goods of this world. Such a person remains burdened by bodily deficiency.

The authors then extend this analogy to the hereafter.

They say that the human being remains in this world for the time required to complete the condition of the soul in association with the body.

When the soul separates from the body at death—described here as a **second birth**—it may benefit from life in the next world and become capable of ascending to the kingdom of the heavens.

The text attributes to Christ the saying:

“Whoever is not born twice shall not enter the kingdom of heaven.”

Just as physicians advise parents, and especially pregnant women, to act moderately so that the fetus may be protected from harm and emerge safely into this world, so the prophets and lawgivers—described as physicians of souls—give communities commandments, prohibitions, laws, and disciplines.

Their purpose is to protect souls from those actions that make them spiritually ill or destroy them through excess.

Just as a patient who follows a physician's instructions benefits, while disobedience worsens the bodily condition, so one who departs from the guidance of the prophets is said to depart from the balanced path.

Chapter 13: Worldly Desire and Forgetfulness of the Hereafter

Know that immersion in worldly appetites causes a human being to forget the hereafter, to doubt it, and eventually to despair of it.

The epistle quotes poetry expressing such uncertainty and scepticism.

It says that people fall into doubt, bewilderment, and confusion because they abandon the counsel of their Lord, the advice of the prophets, and the teachings of scholars and sages concerning the hereafter.

The prophets and sages call them toward the blessings of the world to come, command them to practise detachment from this world, and warn them against being deceived by its immediate pleasures.

Chapter 14: The Ascendant at Birth and the Governance of the Years

Know that every creature born beneath the sphere of the Moon—whether on land, in the sea, in air, earth, or water—must, at the moment of birth, have some zodiacal degree rising upon the eastern horizon of that place.

One of the seven planets must also have authority over that rising degree.

These are treated in the astrological scheme as indications of the newborn and of the events that will occur during the first year of life.

In the second year, governance passes to another degree following it in rising order and to the planet ruling that degree. The third year belongs to the third degree and its ruler.

The same principle continues throughout the natural life.

The source refers the detailed rules to books on natal astrology.

Chapter 15: The Natural Human Lifespan

Know, O brother, that God—exalted is His praise—has, in His wisdom, assigned every species of animal a known natural lifespan, a known duration, and a determined term.

If its life follows the natural course, it neither exceeds nor falls short of that term.

Only God knows the details of these matters.

The natural lifespan assigned to the human being, according to the doctrine presented here, is **120 years**.

Lives longer or shorter than this are attributed to numerous causes whose explanation would be lengthy.

The authors therefore turn to describing the stages of human life, from birth through the natural lifespan.

Chapter 16: The Two Celestial Significators of Life

Know, O brother, that according to the astrologers every animal born has, metaphorically, two parents in the heavens, just as it has two parents on Earth.

One is the indicator of lifespan and is called the **kadkhudāh**, “lord of the house.”

The other is called the **haylāj**, described here as “mistress of the house.”

If both are fortunate at birth, the individual is expected, according to this astrological doctrine, to live well and long.

If both are unfortunate, the reverse is expected.

If the kadkhudāh is favourable while the haylāj is unfavourable, the person is described as long-lived but poor and in difficult circumstances.

If the haylāj is favourable and the kadkhudāh unfavourable, the person may be prosperous but short-lived.

The source then attributes premature death to the exhaustion or affliction of the life-giving significator, though it ultimately says that God alone knows the causes.

Chapter 17: The Planetary Periods of Human Life

The authors say that astrologers generally agree upon a sequence of planetary administrations during the stages of human life.

The Moon — The First Four Years

From birth through the completion of four solar years, the child is under the administration of the Moon, lord of growth, increase, and development.

The other planets share in this administration.

During these years arise growth, nurture, health, illness, honour, humiliation, pleasure, and pain according to the conditions attributed to these rulers.

These years are called the **years of upbringing**.

Mercury — Thirteen Years

After this, administration belongs to Mercury for thirteen years.

Mercury is lord of speech, movement, learning, education, discernment, and understanding.

As the planetary periods unfold, those dispositions which the authors believe were implanted within the fetus become outwardly manifest, just as flowers, seeds, fruits, smells, colours, and flavours become manifest in plants and trees when they reach maturity.

Venus — Eight Years

Thereafter the person enters the administration of Venus for eight years.

Venus is associated with beauty, ornament, appetite, pleasure, sexual desire, and delight.

During this period the source associates the person with interest in marriage, sexual desire, pleasure, ornament, wealth, homes, shops, property, gardens, social display, and worldly enjoyment.

The Sun — Ten Years

Thereafter comes the administration of the Sun for ten years.

The Sun signifies honour, leadership, governance, and administration.

During this period appear concerns with managing the household, raising children, directing family affairs, attending to relatives and companions, seeking honour, authority, rank, and status.

The authors regard these as qualities needed by kings, chiefs, village leaders, and administrators.

Mars — Seven Years

Administration then passes to Mars for seven years.

Mars is associated with resolution, determination, courage, initiative, generosity, boldness, zeal, fairness, and strength.

These are described as qualities required for political administrators, commanders of armies, guardians of communities, and protectors of government and religious law.

Jupiter — Twelve Years

Thereafter comes Jupiter for twelve years.

Jupiter signifies religion, piety, repentance, regret, asceticism, worship, return to God, fasting, prayer, almsgiving, seeking forgiveness, and longing for the hereafter.

The source depicts the rational person during this period as potentially pulled between two opposite tendencies.

Venus together with Mars draws toward worldly pleasure and appetite, while Jupiter together with Saturn draws toward renunciation, worship, repentance, and concern for the hereafter.

If a person disciplines himself, follows the religious law, practises what philosophy prescribes, and remains patient, the conflict between these opposing tendencies gradually becomes easier.

Saturn — Old Age and Natural Death

Finally administration reaches Saturn.

Saturn is associated with stillness, quiet, slowness, the extinguishing of bodily appetites, weakening of animal powers, relaxation of the nerves, withering of bodily instruments, and declining sensory activity.

The soul becomes less able to manifest actions and enjoy bodily pleasures.

The person's desire for this world diminishes, and hope of remaining in the world of generation and corruption fades.

Natural death then approaches gradually when the innate heat of the body is extinguished and the animal spirit withdraws from it, just as a lamp is extinguished and its light disappears when the oil is exhausted and the wick has burned away.

If during life the person has disciplined himself, acquired knowledge, learned good conduct or a useful craft, followed a sound teaching, or performed actions guiding toward the hereafter, the authors say that the soul may find its way back toward its spiritual world and join those of its kind who preceded it.

It thereby escapes the pains associated with the world of generation and corruption: disease, hunger, thirst, cold, heat, fatigue, poverty, toil, destructive appetites, bad habits, ignorance, hostility, envy, oppression, the whisperings of Satan, and the calamities of time.

The epistle then answers those who reject planetary influence.

It compares these supposed influences to medicines whose combined ingredients act upon particular bodily organs, and to musical sounds whose effects upon the soul may produce joy, sorrow, courage, fear, generosity, miserliness, activity, sleep, remembrance, and forgetfulness.

Its argument is that the inability to perceive the mechanism of an influence does not by itself prove that no such influence exists.

Chapter 18: Gestation, Lifespan, and the Measure Assigned to Every Being

Know, O brother, that God has appointed for every seeker some goal, for every goal some end, and for every pursuit a middle measure between excess and deficiency.

The fetus exists within the womb for a purpose, and its eight-month natural gestation is described as a middle measure.

Likewise, the human being remains in the world for a purpose, and the natural lifespan of 120 years is treated as a middle measure.

Longer and shorter durations arise, according to the source, from various causes.

The epistle then presents its numerical relationship between gestation and lifespan.

If the fetus remains eight months, four zodiacal signs or 120 degrees remain before the Sun returns to its original degree; therefore it assigns a natural lifespan of 120 years.

If it remains nine months, three signs or 90 degrees remain, yielding 90 years.

If it remains ten months, two signs or 60 degrees remain, yielding 60 years.

The authors acknowledge that actual experience does not always follow this scheme. A fetus may remain ten months and live 120 years, or remain nine months and die before sixty.

Such cases are attributed to causes outside what the text calls the ordinary natural course.

The same principle is then applied to worldly fortune.

God, according to the epistle, has assigned each person a certain portion of worldly happiness and divides it between **length of life and ease of living**.

One person may receive greater longevity but less prosperity, while another may receive greater prosperity but a shorter life.

The source illustrates this with a story.

A king saw an elderly water-carrier and asked how many caliphs he had lived through.

The man answered, “Many.”

The king asked in amazement, “Why are your lives so long while ours are short?”

The water-carrier replied, “Because your provisions come to you like water pouring from the mouths of waterskins, while ours come like drops of rain.”

The king admired the reply, laughed, and gave him a generous reward that made him wealthy.

Soon afterward the man died.

The king said, “He spoke truly. When his provision began flowing like the mouth of a waterskin, his life became short.”

The authors then extend the analogy to worldly and otherworldly happiness.

They say that every human being has a portion of happiness and blessing divided between this world and the hereafter.

The more one consumes one's whole portion in worldly indulgence, the less remains, in their moral argument, for the world to come.

They cite Qur'anic passages warning against consuming all one's good things in worldly life and urging people to seek the abode of the hereafter with what God has given them.

The reader is therefore warned not to be deceived by the luxury of those who enjoy the world while neglecting the hereafter.

The purpose of the fetus remaining in the womb is that the body may be completed so that the newborn can benefit from worldly life.

In parallel, the rational human being remains within worldly life so that the virtues of the soul may be completed and its character and divine knowledge perfected through reflection, inquiry, effort, and action.

The epistle repeats the philosophical definition of philosophy as **“becoming like God according to the measure of human capacity.”**

The ultimate purpose is that the soul become prepared, according to the authors' cosmology, to ascend to the celestial world and join its spiritual kin among the righteous generations that preceded it.

Chapter 19: Why Prophets and Revealed Laws Were Sent

Know, O brother, that God—exalted is His praise—knew that most people would not live out the complete natural lifespan and would not remain in the world long enough for their souls to be fully disciplined and their virtues perfected.

Out of mercy toward them, He therefore sent prophets, messengers, and lawgivers with commandments, prohibitions, pure traditions, and approved laws.

If people practise them according to the balanced conduct prescribed, their souls may complete their virtues and their characters may be refined even when their lives are short.

The source cites the Qur'anic statement:

“When he reached his full strength and maturity, We gave him judgement and knowledge.”

It also transmits the saying that whoever devotes his worship sincerely to God for forty mornings will have his breast opened by divine light, his heart opened to faith, and his tongue released with wisdom.

This, the epistle says, concerns mature persons subject to command and prohibition.

As for children and those lacking legal responsibility, their souls are described as receiving salvation through the intercession of parents, prophets, and messengers.

Now that you have understood, O brother, the purpose of remaining for a time in the womb and the purpose of remaining for a time within this world, hasten and prepare yourself.

Take provisions, for **the best provision is piety**.

Prepare yourself for departure from this transient world toward the enduring abode before life is exhausted and the appointed term draws near.

One who has been warned has been given an excuse.

The prophets were sent as bearers of good tidings and warners, and scripture and the balance—that is, justice—were sent with them so that people would possess no argument against God after the messengers.

They should not be able to say on the Day of Resurrection:

“No messenger or book came to us; our lives were short and our appointed terms near. Return us so that we may perform righteous works unlike those we formerly performed.”

People are asleep; when they die, they awaken.

Therefore awaken, O brother, from the sleep of heedlessness and the slumber of ignorance before you depart from your homeland and enter the fires, and before the herald calls:

“So-and-so has become wretched, and so-and-so has attained happiness.”

May God grant you and us right guidance.

He is compassionate toward His servants.

Here ends the Epistle on the Fall of the Sperm-Drop.

It is followed by the Epistle on the Saying of the Philosophers that the Human Being Is a Small World.

Epistle 26

On the Saying of the Philosophers that the Human Being Is a Small World

The Twelfth Epistle of the Natural and Physical Sciences

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Chapter 1: Why the Human Being Is Called a Small World

Know, O brother—may God strengthen you and us with a spirit from Him—that we have completed our discussion of the fall of the sperm-drop and explained what is connected with it: the soul's attachment to it, the successive conditions appearing month after month, and the influences attributed to the planets in establishing the structure of the body.

Afterward we explained the ultimate purpose of the existence of the human being and of his remaining for a period in this world. In this epistle we wish to explain the meaning of the philosophers' saying that **the human being is a small world**.

Know that when the ancient philosophers looked upon this bodily world with their physical eyes, observed its outward conditions through their senses, reflected upon its states with their intellects, examined the operations of its universal beings with the eyes of insight, and considered the varieties of its particulars, they found no part of the entire world whose structure was more complete, whose form was more perfect, or whose totality more closely resembled the whole world than the human being.

The human being is a totality composed of a bodily body and a spiritual soul. In the structure of the human body they found analogues of all the beings within the bodily world: the wondrous arrangement of the celestial spheres, the divisions of the zodiacal signs, the motions of the planets, the composition of the elements, the differences among mineral substances, the varieties and forms of plants, and the remarkable bodily structures of animals.

They likewise found analogues within the human soul of the classes of spiritual beings—angels, jinn, human beings, devils, and the souls of the other animals—together with the ways in which their conditions operate throughout the world. These are reflected in the human soul and in the diffusion of its powers throughout the structure of the body.

When these correspondences became clear to them, the philosophers therefore called the human being **a small world**.

We shall mention some of these analogies and correspondences so that they may serve as evidence for the truth of their statement, explain what they meant, make the matter easier for students to understand, and facilitate reflection for those who investigate it.

Chapter 2: Comparing the Human Being with the Conditions of Existing Things

All existing things consist of substances and accidents, and together they comprise matter and form, as we explained in the Epistle on Matter. Accidents are either bodily or spiritual, as we explained in the Epistle on Intellect and the Intelligible.

The human being is likewise a totality composed of two joined substances. One is this bodily body, possessing length, breadth, and depth and apprehended through the senses. The other is this spiritual, knowing soul, apprehended through the intellect.

The body itself is a structure composed of organs having different forms, such as the hands, feet, head, neck, back, hips, knees, legs, and other parts. Each of these is in turn composed of tissues and substances such as bone, nerve, blood vessel, flesh, and skin, as we explained in the Epistle on the Composition of the Body.

These are themselves formed from the four humours: blood, phlegm, yellow bile, and black bile. The humours arise from chyle, chyle from food, food from plants, and plants from the four elements, as we explained in the Epistle on Plants.

Each element is constituted by two of the four well-known qualities, as explained in the Epistle on Generation and Corruption. These qualities are completing forms of bodies and, from another perspective, constitutive forms of other natural bodies, as explained in the Epistle on Matter and Form.

Matter and form themselves are simple, spiritual, intelligible substances brought into being according to the will of their Creator—exalted is His majesty—capable of action and reception without “how,” without time, and without place, but through His command: **“Be,” and it is.**

Since the human being is a totality composed of a dark bodily body and a spiritual soul, he may be considered through many analogies.

When the structure of his body and the remarkable arrangement of its organs and joints are considered, the body resembles a house and the soul resembles its inhabitant. When the soul's actions within the bodily structure and the diffusion of its powers through the joints are considered, it resembles the inhabitant of the house together with his servants, family, and children.

From another perspective, the body resembles a craftsman's workshop. The soul, because its powers permeate the bodily structure and produce wondrous actions through the organs and diverse movements through the joints, resembles the craftsman within the workshop together with his apprentices and servants.

From another perspective, because of the many layers of the bodily structure, the remarkable construction of its joints, the numerous differences among its organs, the branching of its vessels toward the extremities, the differing receptacles deep within the body, and the activities of the powers of the soul, the body resembles a city filled with marketplaces and crafts.

Because the soul governs the condition of the body, administers it, and causes its powers to permeate and operate throughout it, the soul resembles a king ruling that city with his armies, servants, and retinue.

When the generation of the body and the soul's development together with it are considered, the body resembles a womb and the soul resembles a fetus. From another perspective, the body is like a ship, the soul like its sailor, actions like the merchants' cargo, the world like the sea, death like the shore, the hereafter like the city of the merchants, and God Most High like the King who gives recompense there.

The body may also be compared to a mount, the soul to its rider, the world to a racecourse, and actions to the race. Or the soul may be compared to a farmer, the body to a field, actions to the seed and fruit, death to the harvest, and the hereafter to the threshing floor.

The wondrous construction of the body described in books of anatomy, together with the sciences acquired by the soul through its association with the body, also makes the body resemble a school and the soul a child studying within it.

From yet another perspective, the structure of the body, the diffusion of the soul's powers through it, and the entire range of human conditions resemble a book filled with sciences. It is therefore said that the human being is **an abridgement of the Preserved Tablet**.

The philosophers have offered many analogies concerning this, and we shall mention a brief symbolic example appropriate to our purpose.

Chapter 3: The Human Being as an Abridgement of the Preserved Tablet

It is related that there was once a king who was also a wise philosopher and a master among noble men. He had young children whom he loved and honoured.

He wished to educate, refine, and train them before admitting them into his royal assembly, for the company of kings is suitable only for those refined through good manners, trained in the sciences, adorned with beautiful character, and purified of defects.

In his wisdom, he decided to build for them a palace of the most perfect construction. He assigned to each child a separate chamber. On the walls of every chamber he wrote the sciences he wished that child to learn and depicted everything through which he wished to refine and educate him.

He then settled the children within the palace, each in the place prepared for him, and appointed servants, maidservants, and attendants over them.

He said to the children:

“Look at what I have depicted before you. Read what I have written there for your sake. Reflect upon what I have explained to you and think carefully about these things so that you may understand their meanings and thereby become wise, virtuous, excellent, and righteous. Then I shall admit you to my assembly, and you shall become my honoured companions, fortunate and blessed.”

Among the sciences written for them in those chambers were the following. At the top of the chamber he depicted the celestial spheres, explaining how they revolve. He depicted the zodiacal signs and their risings, the planets and their motions, and the indications and judgements attributed to them.

In the centre he depicted the Earth, its climatic regions, mountains, seas, deserts, and rivers, and explained the boundaries of countries and cities, roads, and kingdoms.

At the front he inscribed the sciences of medicine and natural philosophy and depicted plants, animals, and minerals according to their species, genera, and individuals, explaining their properties, benefits, and harms.

On another side he wrote of crafts and occupations, explaining agriculture, reproduction, cities, marketplaces, buying, selling, profit, and commerce. Elsewhere he inscribed the science of religion, communities, revealed laws, and traditions, explaining what is permitted and prohibited, the prescribed limits, and legal judgements.

On another side he inscribed politics and administration of the kingdom, explaining taxation, secretaries, government registers, the pay of soldiers, the protection of subjects, and the defence of frontiers with armies and assistants.

These are six genera of sciences through which the children of kings are trained.

The philosophers offered this as an analogy. The wise king is God Most High. The young children are humanity. The constructed palace is the entire celestial world. The well-prepared chambers are the human forms. The lessons depicted within them are the wondrous composition of the body, and the sciences written within them are the powers and knowledge of the soul.

We shall explain some of these matters chapter by chapter in the briefest manner.

Chapter 4: On the Excellence of the Substance of the Soul

Know that the substances of souls possess with God a rank and dignity not possessed by bodily substances. This is because the relation of souls is nearer to Him, while the relation of bodies is more remote.

The substances of souls are living in themselves, knowing and active, while bodily substances are dead and receptive to action.

We explained in the Epistle on the Intellectual Principles that the relation of existents to the Creator may be represented through number: the Creator is like One, Intellect like Two, Soul like Three, Prime Matter like Four, Nature like Five, Body like Six, the celestial sphere like Seven, the elements like Eight, and generated beings like Nine.

From another perspective, the relation of the soul to Intellect resembles the relation of moonlight to sunlight, while the relation of Intellect to the Creator resembles the relation of sunlight to the Sun.

Just as the Moon, when filled with the light of the Sun, reflects and resembles that light, so the soul, when it receives the effusion of Intellect and completes its virtues, causes its actions to resemble the actions of Intellect.

The soul completes its virtues when it knows itself and the reality of its own substance. Its excellences become apparent when it knows the conditions of its own world, namely the human form.

For the Creator—exalted is He—created the human being in the finest constitution, formed him in the most complete form, and made his form a mirror for his soul, so that within it the soul might behold the form of the great world.

When the Creator wished to acquaint the human soul with the treasures of His knowledge and allow it to witness the whole world, He knew that the world is vast and immense and that the shortness of human life does not permit a human being to travel throughout the whole world and witness everything within it.

In His wisdom, therefore, He created for the soul a small world abridged from the great world. Within this small world He represented everything in the great world and placed its likeness before the soul so that it might witness it.

Know further that the beginning of all sciences lies in a human being's knowledge of himself.

Knowledge of the human being is acquired from three perspectives. First, one examines the state of the body, its composition and structure, and the qualities belonging to it considered apart from the soul. Second, one examines the state of the soul and the qualities attributed to it considered apart from the body. Third, one examines the two together and the qualities attributed to their combined whole.

We explained some of these considerations in the Epistle on the Composition of the Body, and we now wish to add further examples.

Chapter 5: Comparing the Human Being with the Celestial Sphere

Know that the Creator Most High placed within the structure of the human body examples and indications corresponding to the celestial spheres, their zodiacal signs, the heavens, and their layers.

He also made the diffusion of the powers of the soul through the joints and different organs resemble the diffusion of the powers of the various classes of angels and the tribes of jinn, humans, and devils throughout the layers of heaven and earth, from the highest heights to the lowest depths.

There are nine celestial layers, one inside another. Likewise, the human body contains nine principal substances arranged around and within one another: bone, marrow, flesh, vessels, blood, nerves, skin, hair, and nails.

The marrow is stored inside the bones until needed. The nerves are wrapped around the joints to hold them together. The spaces between are filled with flesh for protection. Vessels and pulsating arteries run through the flesh for its preservation and well-being. The whole is clothed with skin as a covering and ornament, while hair and nails grow from excess material for their respective functions.

Thus the bodily structure corresponds to the celestial spheres both in number and arrangement: the heavens comprise nine layers, and the body these nine substances.

Because the celestial sphere is divided into twelve zodiacal signs, the body likewise contains twelve apertures corresponding to them: the two eyes, two ears, two nostrils, two breasts, the mouth, the navel, and the two lower passages.

Because six zodiacal signs are northern and six southern, six bodily openings are found on one side and six on the other, according to the correspondence intended by the authors.

Because there are seven wandering planets through which, in their cosmology, celestial governance and the affairs of generated things proceed, there are likewise seven active powers in the body through which its well-being is maintained: the attractive, retentive, digestive, expulsive, nutritive, growth-producing, and formative powers.

The authors then draw a second correspondence between the seven planets and seven spiritual powers. Five are the sensitive powers—sight, hearing, taste, smell, and touch—while the remaining two are the speaking and intellective powers.

The five sensory powers correspond to the five planets other than the Sun and Moon. The speaking power corresponds to the Moon, while the intellective power corresponds to the Sun.

Each of the five planets possesses two zodiacal houses, one associated with the side of the Sun and another with the side of the Moon, whereas each of the two luminaries has one house. Likewise, each of the five sensitive powers possesses two bodily pathways.

The visual power operates through the two eyes, the auditory power through the two ears, the olfactory power through the two nostrils, and touch through the two hands. The text also draws an analogy between the appetitive and gustatory powers and the mouth and reproductive organs.

The speaking faculty has its pathway through the throat to the tongue, while the intellective faculty has its pathway through the middle of the brain.

The relation of speech to intellect is like the relation of the Moon to the Sun. The Moon receives its light from the Sun while passing through its twenty-eight lunar mansions. Likewise, the speaking faculty receives meanings from intellect and expresses them through the twenty-eight letters.

Thus the twenty-eight letters stand in relation to speech as the twenty-eight lunar mansions stand in relation to the Moon.

There are also two nodes in the heavens, the Head and the Tail, invisible in themselves but manifest through their effects. Likewise, there are two invisible conditions in the body whose effects are clearly apparent: sound temperament and corrupt temperament.

When the mixture of the bodily humours is sound, the organs are healthy and the activities of the soul proceed naturally. When the temperament is corrupted, the bodily structure becomes disturbed and the actions of the soul are obstructed.

Just as the lunar nodes most severely affect the two luminaries in eclipses, corruption of bodily temperament most severely affects the speaking and intellective faculties.

The two eyes are compared with Jupiter's two houses, the ears with Mercury's, the nostrils and breasts with those of Venus, and the two lower passages with those of Saturn. The mouth corresponds to the house of the Sun and the navel to the house of the Moon.

The navel was the gate of nourishment in the womb before birth, while the mouth is the gate of nourishment in this world.

Just as the zodiacal signs contain bounds, faces, and degrees with differing qualities, the body contains organs, joints, vessels, nerves, and bones of many varieties. The detailed correspondences would require a lengthy explanation, so the authors leave them aside.

Chapter 6: The Resemblance of the Human Body to the Four Elements

Know that beneath the sphere of the Moon there are four elements, the “mothers” through which the generated things—animals, plants, and minerals—are sustained.

Likewise, the bodily structure has four principal regions: the head, chest, abdomen, and the lower region extending down to the feet.

The head corresponds to fire because of the rays of vision and activity of the senses. The chest corresponds to air because of respiration and the inhalation of air. The abdomen corresponds to water because of the many moistures contained within it. The lower portion of the body corresponds to earth because the body rests upon it, just as the other three elements rest upon and surround the Earth.

Just as vapours rise from the four elements and from them are formed winds, clouds, rains, animals, plants, and minerals, various vapours and moistures likewise arise from these four bodily regions, including mucus from the nostrils, tears from the eyes, saliva from the mouth, winds generated in the abdomen, urine, excrement, and other bodily fluids.

The bodily structure may therefore be compared with the Earth. Its bones are like mountains, the marrow within them like minerals, its cavities like seas, the intestines like rivers, the vessels like streams, the flesh like soil, and hair like vegetation.

Places where hair grows resemble fertile land, while places without hair resemble barren salt land. The front of the body resembles inhabited regions and the back resembles wilderness. The face corresponds to the east, the back to the west, the right side to the south, and the left side to the north.

Breathing resembles the winds, speech resembles thunder, bodily sounds resemble thunderbolts, laughter resembles daylight, weeping resembles rain, sadness resembles the darkness of night, sleep resembles death, and wakefulness resembles life.

Childhood resembles spring, youth summer, maturity autumn, and old age winter.

Human movements and actions resemble the movements and revolutions of the planets. Birth resembles their rising and death their setting. The successful progress of affairs resembles direct planetary motion, while retreat resembles retrogradation.

Illness resembles planetary combustion, hesitation resembles a planetary station, elevation in rank resembles ascent toward apogee and exaltation, and decline resembles descent toward perigee.

Union with a spouse resembles conjunction, continued association resembles celestial connection, separation resembles departure, and mutual regard resembles planetary aspect.

Just as the Sun is leader of the planets, there are kings and rulers among human beings. The relation of Mars to the Sun resembles that of a military commander to a king; Mercury resembles scribes and ministers; Jupiter resembles judges and scholars; Saturn resembles treasurers and agents; and Venus resembles attendants and singers.

The authors liken the Moon to subordinate rulers who first receive authority from the king and may later challenge him. The Moon receives light from the Sun until it opposes it and becomes comparable to it in brightness. Likewise, a subordinate may initially follow a ruler and later contend with him for sovereignty.

The phases of the Moon also resemble the conditions of worldly life. Its light begins by increasing, reaches completion at mid-month, then decreases until it disappears. So too worldly life begins with growth, reaches maturity, and thereafter declines.

Chapter 7: On the Enumeration of the Powers of the Soul

The body, because of the multitude of its wonders, the arrangement of its organs, and the construction of its joints, resembles a city. The soul resembles the king of that city, its powers resemble armies and helpers, and their activities within the body resemble subjects and servants.

The human soul possesses many powers whose full number is known only to God. Each has a particular pathway through a bodily organ and a distinct relation to the soul.

Among these are the five sensitive powers, which resemble messengers appointed over different regions of a kingdom.

The auditory power operates through the ears and apprehends sounds. Sounds may be animal or non-animal, meaningful or meaningless. They include the sounds of drums, thunder, stones, trees, musical instruments, the cries of animals, laughter, weeping, screaming, groaning, and articulated human speech.

The auditory power receives these and transmits their information to the imaginative faculty in the front of the brain, resembling an official who brings reports to a king.

The visual power operates through the eyes and apprehends visible things such as light, darkness, colours, magnitudes, dimensions, shapes, forms, motions, and states of rest. It distinguishes these and conveys their reports to the imaginative faculty, like a watchman or courier serving a king.

The olfactory power operates through the nostrils and apprehends odours, broadly divided into pleasant and unpleasant. Since individual smells often lack distinct names, the speaking faculty identifies them by their sources, such as the smell of musk, camphor, aloeswood, or narcissus.

The gustatory power operates through the tongue and apprehends tastes such as sweetness, bitterness, sourness, saltiness, fattiness, astringency, pungency, contraction, and mildness.

The tactile power apprehends tangible qualities such as heat, cold, moisture, dryness, smoothness, roughness, hardness, softness, heaviness, and lightness.

Each of these faculties distinguishes its own sensible objects and transmits information concerning them to the imaginative faculty.

The relation of the soul to these five sensitive powers and their many sensible objects resembles, according to the authors, the relation of five great prophets sent by one Sender. Their laws differ, and beneath each law are many rulings and communities.

Just as all those communities finally return to God so that He may judge between them concerning that in which they differed, so all sensible impressions eventually return to the rational soul, which distinguishes them, knows each according to its reality, judges them, and assigns each to its proper place.

Chapter 8: The Five Higher Spiritual Powers

Know, O brother, that the human soul possesses five further powers whose relation to the soul differs from that of the five sensory powers.

These powers cooperate with one another in receiving and handling the forms of knowledge.

Three stand in relation to the soul like close companions of a king who are permanently present in his assembly and acquainted with his secrets. These are the imaginative faculty in the front of the brain, the thinking faculty in the middle, and the retentive faculty in the rear.

A fourth stands in relation to the soul like the chamberlain and interpreter of a king. This is the speaking faculty, which communicates the meanings existing within the soul's thoughts, knowledge, and needs through the throat and tongue.

The fifth stands in relation to the soul like a minister assisting a king in governing his realm. This is the productive faculty through which the soul performs writing and the crafts, operating through the hands and fingers.

When the imaginative faculty receives representations of sensible things from the sensory faculties, it gathers them and passes them to the thinking faculty. The thinking faculty distinguishes truth from falsehood, correctness from error, and harmful from beneficial.

It then passes these representations to the retentive faculty so that they may be preserved until required.

The speaking faculty later receives these preserved forms and expresses them in speech.

Because sounds remain in the air only briefly and then disappear, divine wisdom caused words to be preserved through writing. The productive faculty therefore fashions visible written forms with the pen and places them on tablets and scrolls.

Knowledge is thereby preserved as a benefit from those of the past to those who come afterward, as a trace of earlier generations for later ones, and as communication from the absent to those present.

This is among God's greatest favours to the human being, as He says:

“Read, and your Lord is the Most Generous, who taught by the pen, taught the human being what he did not know.”

Chapter 9: The Powers of the Human Soul as Evidence for the Powers of the Universal Soul

Know, O brother, that when an intelligent and understanding person reflects upon the powers already mentioned—their diffusion through the bodily organs, their apprehension of sensible things, their formation of representations, and the soul's awareness of them—he finds within himself a witness concerning himself.

His own being becomes an indication that the Universal Soul possesses many powers diffused throughout the celestial spheres, the layers of heaven, the elemental foundations, animals, and plants.

These powers are appointed to preserve creation and administer the welfare of beings. The authors identify them with the angels of God, His chosen servants who do not disobey Him and perform what they are commanded.

Just as the bodily faculties carry out the needs of the soul without the soul verbally addressing them, these universal powers operate without spoken command.

From this, the reflective person may also understand by analogy that God is aware of the secrets and conditions of all beings, and that not even the weight of an atom is hidden from Him.

Likewise, the human soul remains aware of the sensible objects of its senses and the knowledge of its faculties, which obey its direction and bring it information without spoken command.

Chapter 10: Comparing the Human Being with the Beings Beneath the Sphere of the Moon

The existents beneath the sphere of the Moon are of two kinds: simple and composite.

The simple bodies are the four elements—fire, air, water, and earth. The composite bodies are the generated and corruptible beings: minerals, plants, and animals.

Minerals precede plants in generation, plants precede animals, and animals precede human beings.

Each class possesses a distinctive property. The elements possess heat, cold, moisture, and dryness and may transform into one another. Plants possess nourishment and growth. Animals possess sensation and movement. Human beings possess speech, thought, and the capacity to produce demonstrations. The angels are characterised here as not dying.

The human being participates in all these classes. He possesses four qualities capable of transformation like the elements, undergoes generation and corruption like minerals, is nourished and grows like plants, senses and moves like animals, and according to the doctrine of the epistle possesses the possibility of spiritual immortality like the angels.

Chapter 11: How the Human Being Shares the Characteristics of Animals

Know, O brother, that animals are of many species and that each possesses some characteristic distinguishing it from others. The human being participates in all of these characteristics.

All animals share two universal tendencies: seeking what benefits them and fleeing what harms them.

Some seek benefit through force and domination, like predatory animals. Some seek it through submissiveness and ingratiation, like dogs and cats. Others seek it through cunning, like the spider.

These same tendencies appear among human beings. Kings and rulers seek advantage through power, the needy through asking and humility, and craftsmen and merchants through skill, strategy, and gentleness.

Animals also avoid harm in different ways. Some defend themselves through fighting, like beasts of prey; some flee, like rabbits and gazelles; some protect themselves with natural armour, like the hedgehog and tortoise; and others retreat underground, like mice, snakes, and creeping creatures.

Human beings likewise defend themselves by strength, armour, flight, fortification, or cunning.

The authors then compare human character traits with the characteristics attributed to various animals. A human being may be brave like a lion, cowardly like a hare, generous like a rooster, miserly like a dog, boastful like a crow, wild like a leopard, tame like a pigeon, cunning like a fox, peaceful like a sheep, swift like a gazelle, violent like a bear, mighty like an elephant, submissive like a camel, thieving like a magpie, vain like a peacock, skilful like a bee, fierce like a dragon, patient like a lamb, hard-working like an ox, refractory like a mule, silent like a fish, or eloquent like a nightingale or parrot.

In general, there is no animal, mineral, plant, element, celestial sphere, planet, zodiacal sign, or other existing thing possessing a distinctive property without that property—or some analogue of it—being found in the human being.

The totality of these qualities is not gathered together in any other single class of beings.

For this reason the philosophers said that **the human being is the unity that comes after multiplicity, just as the Creator is the One preceding all multiplicity**.

Because of the wonders of the human body, the remarkable operations of the soul, and all that appears through human sciences, crafts, character traits, opinions, doctrines, actions, speech, and bodily and spiritual effects, the philosophers called the human being **a small world**.

Chapter 12: The Human Being as a Book, a Balance, and a Straight Path

Look, O brother, upon this structure built through wisdom.

Contemplate this book filled with sciences, and reflect upon this straight path stretched between Paradise and Hell. Perhaps you may be granted success in good deeds and in travelling along it.

Consider also this balance established in justice, through which you may know the weight of your good and evil deeds.

Take account of yourself before your capital is lost, for Paradise lies beyond all of this.

Remember God's saying:

“Your own soul is sufficient today as a reckoner against you.”

And:

“This is Our book, speaking against you with truth; indeed We were recording what you were doing.”

And:

“This is My straight path, so follow it.”

If you do not know how to read this book, calculate this account, weigh with this balance, or cross this path, then come to an assembly of sincere brothers and noble friends who are virtuous, knowledgeable, good, loving toward you, and affectionate toward you.

They will make known to you that which you cannot reasonably deny and teach you that concerning which certainty may be attained through witnesses drawn from your own soul, demonstrations arising from your own being, and indications found within your own substance.

This occurs when your soul awakens from the sleep of heedlessness and the slumber of ignorance, when you look with the eye of insight as they looked, follow their just conduct, practise their excellent tradition, gain understanding of their rational law, enter their spiritual city, adopt their angelic character, understand their sound opinions, and learn their true knowledge.

Then you will be strengthened by the spirit of eternal life and live the life of the blessed through your purified and enduring soul, not through your decaying and changing body.

Chapter 13: The Correspondence Between the Seven Planets and the Principal Organs of the Body

Know further that divine wisdom and providential care have made the organs of every animal proportionate to the totality of its body, as we explained in the Epistle on the Excellence of Proportions.

We shall mention some of these correspondences so that the relationship between the small world and the great world may become clear.

Since the human being is the most complete of the existents and the most perfect of the generated beings beneath the sphere of the Moon, and since the human body is a part of the entire world while this particular part most closely resembles the whole, the human soul likewise most closely resembles, among particular souls, the Universal Soul.

The diffusion and activity of the powers of the human soul throughout the body correspond to the diffusion of the powers of the Universal Soul throughout the cosmos.

The structure of the cosmos contains seven noble moving celestial bodies, each administering particular functions by permission of the Almighty King. Likewise, the human body contains principal organs, each possessing a power through which it performs its particular actions.

The authors compare these organs with the seven planets.

The Heart and the Sun

The relation of the heart to the body resembles the relation of the Sun to the entire world.

Just as the Sun occupies a central position among the celestial spheres in the cosmology of the epistle, the Creator placed the heart near the middle of the body.

From the Sun spread light and rays throughout the world, while its spiritual powers are said to permeate the cosmos. Likewise, from the heart innate heat spreads through the pulsating arteries to all the extremities of the body.

Through this heat, according to the physiological theory of the epistle, bodily life and well-being are maintained.

The Spleen and Saturn

The relation of the spleen to the body resembles the relation of Saturn to the world.

Saturn's spiritual powers are associated with stability and with the preservation of forms in matter.

Likewise, the spleen is associated with the black-bile humour, which is cold and dry. This humour circulates with the blood and, according to the medical theory employed by the text, contributes to thickening the moisture of the blood and holding its parts together.

The Liver and Jupiter

The relation of the liver to the body resembles that of Jupiter to the world.

Jupiter is associated with order, balance, moderation, and the proportional arrangement of the parts of the cosmos.

Likewise, the liver plays a central role in the production, ordering, and moderation of the bodily humours.

The Gallbladder and Mars

The relation of the gallbladder to the body resembles that of Mars to the world.

Mars is associated with force, determination, heat, and the carrying of things toward their limits.

Likewise, the gallbladder is associated with yellow bile, whose power is said to circulate with the blood and assist in refining the humours and carrying their processes toward completion.

The Stomach and Venus

The relation of the stomach to the body resembles the relation of Venus to the world.

Venus is associated with joy, pleasure, delight, ornament, beauty, and desire.

Likewise, from the stomach proceeds the appetitive power seeking nourishment. Food is the material of the body and the matter from which the humours arise.

Through nourishment come bodily life, pleasure in living, and maintenance of the physical constitution.

The Brain and Mercury

The relation of the brain to the body resembles that of Mercury to the world.

Mercury is associated with sensation, understanding, intelligence, knowledge, and communication.

Likewise, from the middle of the brain proceeds the power through which arise sensation, awareness, intelligence, thought, deliberation, and the various forms of knowledge.

The Lungs and the Moon

The relation of the lungs to the body resembles that of the Moon to the world.

The powers associated with the Moon are described as moving between the upper and lower worlds. The Moon is always half illuminated and half dark and presents different aspects during its phases.

Likewise, from the lungs proceeds a power that at one time draws air from outside the body and sends it to the heart. From the heart the air is carried through the pulsating arteries toward all the extremities of the body.

This movement is associated with the pulse and with the maintenance of bodily life.

At another time, the lungs return air outward from within the body. Through this movement occur breathing, sounds, and speech.

Therefore awaken, O brother, from the sleep of heedlessness and the slumber of ignorance.

May God grant us, you, and all our brothers right guidance, and may He guide us all along the path of righteousness.

Indeed, He is compassionate toward His servants.

Here ends the Epistle on the Saying of the Philosophers that the Human Being Is a Small World.

It is followed by the Epistle on the Development of Souls.

Epistle 27

On How Particular Souls Develop in Natural Human Bodies

The Thirteenth Epistle of the Natural and Physical Sciences

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Chapter 1: The Body as a Womb for the Soul

Know, O righteous and compassionate brother—may God strengthen you and us with a spirit from Him—that, having completed our explanation of the philosophers' saying that the human being is a small world, we now wish in this epistle to explain how particular souls develop.

Know that this body stands in relation to these souls as the womb stands in relation to the fetus.

When the fetus completes its bodily structure within the womb and its form is perfected there, it emerges into this world complete in creation and sound in its senses. It then benefits from life in this world and enjoys its blessings for an appointed period.

The condition of souls in the hereafter is analogous to this.

When a particular soul has completed its essence by passing from potentiality into actuality through the sciences and forms of knowledge acquired by way of the senses, and when its form has been perfected by the virtues it acquires through intelligible things, experience, intellectual disciplines, and the various modes of ordering life in this world, then it becomes prepared for another mode of existence.

This perfection includes regulating worldly livelihood according to the middle way, preparing for the return according to the paths of guidance, and refining the soul through beautiful character, sound opinions, and righteous actions. All of this takes place through the mediation of this body composed of blood and flesh.

If the soul then separates from the body while possessing clear insight concerning itself and its condition—having known its own substance, conceived its own essence, understood the nature of its world, its beginning, and its return, and having come to dislike continued association with the body—it remains separated from matter and becomes independent through its own essence.

It then no longer needs attachment to bodies.

At that point, according to the teaching of the epistle, it ascends toward the Highest Assembly, enters among the ranks of the angels, beholds spiritual realities, and witnesses luminous forms that cannot be apprehended by the five bodily senses or conceived through ordinary human imagination.

The prophetic symbols refer to this when they speak of Paradise as containing that which no eye has seen, no ear has heard, and which has never occurred to the heart of a human being—bliss, pleasure, joy, delight, repose, and fragrance.

God Most High says:

“Therein is whatever souls desire and whatever delights the eyes, and therein you shall remain forever.”

And He says:

“No soul knows what comfort of the eyes has been hidden for them as a reward for what they used to do.”

But if the fetus does not complete its formation within the womb, or if its bodily form remains imperfect, or if some defect or deformity affects one of its organs, then it cannot benefit fully from life in this world or perfectly enjoy its pleasures.

Such is the condition of those born blind, mute, deaf, paralysed, or otherwise physically impaired.

The epistle says that the condition of particular souls at separation from human bodies is analogous.

If the particular soul has not been completed through sciences and forms of knowledge while still joined to the human body and capable of apprehending sensible things, if it has not perfected its form through knowledge of the realities of things while still possessing intellect, discernment, and deliberation, if it has not refined itself through beautiful character while effort and resolve are still possible, and if it has not corrected the crookedness of its corrupt opinions, then its bad actions and ugly deeds weigh heavily upon it.

When such a soul separates from the body, it cannot fully benefit from its own substance or stand independently through itself.

The weight of its burdens prevents it from rising toward the Highest Assembly.

It cannot ascend to the kingdom of heaven or become worthy of entering among the companies of angels.

The gates of heaven are closed before it, and it misses that repose and fragrance.

The text cites the Qur’anic statement:

“The gates of heaven shall not be opened for them, nor shall they enter Paradise until the camel passes through the eye of the needle.”

The reason, according to the epistle, is that such a noble place does not befit a soul still burdened by blameworthy qualities, unrefined character, base habits, unjust conduct, corrupt beliefs, accumulated ignorance, and evil deeds.

Such a soul remains bound and imprisoned.

That luminous abode and spiritual world do not befit it, just as the company and intimate assembly of kings do not befit those who are unprepared for them.

If the soul misses that noble station, it remains suspended below the heavens.

Its own “devils”—the bodily appetites, corrupt opinions, and attachment to material concerns—drag it downward again toward the depths of dark bodies and the prison of bodily nature.

The waves of burning desire drive it toward the valleys of the abyss, where it has no companion.

The epistle likens this condition to devils dragging the blind and crippled through the roads.

It cites God's saying:

“Whoever turns away from the remembrance of the Merciful, We appoint for him a devil, and he becomes his companion.”

It also cites the idea that companions are appointed who make attractive to such people what lies before them.

The soul then suffers, according to this imagery, at one time from the scorching heat of the aether and at another from bitter cold, together with darkness, loneliness, pain, and punishment until the Resurrection.

The authors cite the verse concerning Pharaoh's people:

“The Fire—they are exposed to it morning and evening; and on the Day the Hour is established: admit the people of Pharaoh to the severest punishment.”

They also cite:

“And behind them is a barrier until the day they are resurrected.”

All this is said to arise because of the soul’s intense longing for the bodily pleasures to which it had become accustomed, even though it has now lost them, without having acquired spiritual pleasures in their place.

Thus it has lost both this world and the next.

That is the manifest loss.

Chapter 2: Knowledge and Wisdom as Nourishment for the Soul

Know, O noble, righteous, and compassionate brother—may God strengthen you and us with a spirit from Him—that knowledge and wisdom stand in relation to the soul as food and drink stand in relation to the body.

Bodies are first nourished through milk and later through food and drink, which are the nourishment and material of the body.

Through these, the small body grows, the deficient becomes complete, the thin becomes well nourished, the weak becomes strong, and the bodily form acquires its beauty and perfection until it reaches the furthest limit of its natural development.

The condition of souls is analogous to the condition of bodies.

Because body and soul are so closely joined during earthly life, the nourishment of the soul has a corresponding function.

Particular souls acquire their forms through the sciences, grow through wisdom, become luminous through knowledge, strengthen their thought through intellectual exercises, and illuminate their reflections through education and good conduct.

Their intellects expand so as to receive abstract spiritual forms.

Their aspirations rise toward things that endure.

Their resolve is strengthened to reach the highest of their possible ends by ascending through noble ranks, contemplating the divine sciences, following spiritual and godly paths, and devoting themselves to noble forms of wisdom.

The text refers in this connection to Socratic philosophy, to spiritual discipline, asceticism and renunciation, to the Christian mode of monastic detachment, and to adherence to the pure religion.

The purpose is the soul's resemblance to its universal substance, its reunion with its higher world, its approach toward its First Cause, its grasping of the protecting cord, its seeking of divine pleasure and nearness, and its union with beings of its own kind within the spiritual world and its luminous abode.

The epistle cites the Qur’anic saying:

“Indeed, the abode of the hereafter is truly life, if only they knew.”

If that abode itself is life, the text asks, what then do you suppose of the beings who inhabit it and of the nature of their bliss?

The answer is alluded to in the verse:

“In a seat of truth, in the presence of a Sovereign, All-Powerful.”

Understand, then, O brother, these indications, aims, and symbols.

Know further that when the soul awakens from the sleep of heedlessness and rises from the slumber of ignorance, exerts itself, casts away bodily coverings, corporeal veils, natural habits, bestial character traits, ignorant opinions, and the stains of material appetites, it becomes liberated and rises.

Its essence is then illuminated, its substance shines, its lights radiate, and its vision becomes sharp.

It then sees spiritual forms, beholds luminous substances, and witnesses hidden realities and concealed mysteries that cannot be apprehended through bodily senses.

These things are not perceived except by a soul that has become purified through refinement of character and is no longer bound by merely natural desire or bodily appetite.

When the soul beholds such realities, it becomes attached to them as a lover to the beloved.

It embraces them as a beloved embraces the object of love and becomes united with them as light is united with light.

It remains with them through their abiding, endures with their endurance, rejoices in their repose and fragrance, and takes pleasure in delights that human tongues are unable to describe and human imagination cannot encompass in their true nature.

The text again cites:

“No soul knows what comfort of the eyes has been hidden for them as a reward for what they used to do.”

And:

“Therein is whatever souls desire and whatever delights the eyes, and therein you shall remain forever.”

Know further that when a fetus emerges safely from the womb, protected from accidental harms, sound in its senses, and strong in body, and when its bodily structure becomes firm, the powers of the soul spread throughout the body.

The sensitive powers then encounter sensible objects and apprehend them according to their forms.

They transmit the representations of those sensible objects to the imaginative faculty in the front of the brain, and the imaginative faculty passes them to the thinking faculty.

When the sensible objects themselves disappear from the senses, their impressions remain represented within the thought of the soul.

The soul then becomes able to operate upon these representations without requiring the continued presence of the external object.

When the soul contemplates them and distinguishes them through the intellect, it finds nothing there except the forms of those sensible things abstracted from their matter and represented within the substance of the soul.

Thus, relative to these representations, the substance of the soul is like matter, while the impressions represented within it are like forms.

The same applies to intelligible forms within the soul.

They are forms of genera and species abstracted by the soul through its thinking power and represented within itself.

The text compares this to the way air carries sounds and melodies to hearing and carries odours toward smell while preserving their distinctive forms.

Air does not confuse one with another unless some external accident intervenes, because air is regarded here as a subtle, spiritual-like body capable of preserving forms.

Likewise the soul receives within itself forms acquired from sensible and intelligible objects, represents them through thought, and preserves them through the retentive faculty without confusing one with another.

The substance of the soul is, according to the authors, even more spiritual than the substance of air and the substance of light.

Thus when the soul becomes independent through itself and no longer depends upon bodily senses, it rejoices in its salvation, takes gladness in its deliverance, moves freely through the spiritual kingdom, and settles in Paradise wherever it wills.

Excellent is the reward of those who act.

Know further that bodies are subject to illnesses and diseases that remove them from equilibrium and incline them away from the soundness of their constitution.

When this occurs, bodies become sick and cannot fully benefit from life in this world or completely enjoy its blessings.

Particular animal souls likewise suffer illnesses that remove them from equilibrium, from the middle way, from health, truth, the straight path, and guidance.

These diseases cause the human being to deviate from the proper paths of guidance, so that he neither benefits fully from life in the first world nor attains happiness in the next.

The diseases of the soul are four in number:

accumulated ignorance, bad character, corrupt opinions, and evil actions.

All of these branch out within particular human souls because of their intense inclination toward bodily appetites.

The text compares these appetites to burning fires kindled within the hearts through disturbing grief and consuming anxieties.

Human beings are deceived by bodily pleasures, which the authors describe as little more than temporary relief from natural pains and the afflictions belonging to material existence.

Chapter 3: The Treatment of the Diseases of the Soul

Know that the illnesses of souls have cures and a medicine by which they may be treated, just as illnesses of bodies have medicine and drugs by which they are treated.

Physicians have books describing bodily treatments.

Likewise, the illnesses of souls have books and principles of knowledge brought by prophets and sages in which the treatment of spiritual diseases is described.

Their treatment consists in following the way of the revealed law, avoiding prohibited things, refraining from what has been forbidden, following its good practice, walking according to its just conduct, seeking knowledge, adopting beautiful character, and remaining upon the path of guidance and the middle way in seeking the necessities of worldly life.

At the same time, the human being should strive through righteous works for the blessings of the hereafter.

Diseased souls are treated by reminding them of their beginning and of the return that they have forgotten, through analogies, promises, encouragement toward abundant reward, and praise of those who repent and return, so that perhaps they may remember.

Know that books of medicine explain the basic constitution of the body, the temperaments of the humours, the causes of diseases, and methods of treatment through simple and compound medicines, whose doses differ according to bodily constitutions, climates, and habits.

Similarly, the revealed books brought by the prophets—who are described here as **physicians of souls**—explain the nature of the soul, the beginning of the world's existence, the cause of the soul's disobedience, which is its illness, and the cause of its fall from its proper rank, which the epistle calls its first death.

They explain the cause of its health, the causes of its alteration and corruption, the varieties of its diseases, and the treatment of sick souls through regret, repentance, good character, righteous action, avoidance of what God and His Messenger have forbidden, remembrance of the return, and trust in God in every affair.

The epistle cites several Qur’anic passages concerning Adam, the children of Adam, the covenant, prophets, warning, and responsibility, making the point that human beings have been instructed so that whoever perishes does so upon clear evidence and whoever lives does so upon clear evidence.

Know further that a group among the rational people have turned away from prophetic religions and inclined instead toward philosophical opinions.

The epistle says that they did so because their understanding fell short of grasping the forms of those realities to which the prophets referred through indications and symbols.

They therefore failed to apprehend the realities of meanings communicated to the prophets by angels through revelation, inspiration, divine assistance, and symbolic indication.

The prophets, according to the authors, received revelation from the angels through the purity of the substances of their souls and the affinity of their spirits with angelic spirits—not through logical syllogisms or philosophical exercises.

The text compares this with healing medicines whose efficacy may be real even when one does not understand the precise cause of their curative property.

Know also that among the practices of religious law and good conduct is eating food—the nourishment of the body—with **three fingers**.

The authors interpret this practice symbolically as an indication from the Lawgiver to souls and as an encouragement that knowledge, which is the food of the soul, should likewise be sought through **three paths**.

For knowledge is the nourishment of the soul just as food is the nourishment of the body, and the states of soul and body correspond because of the closeness of their union.

One path through which the soul acquires knowledge is the **power of thought**, by which it apprehends intelligible beings.

The text associates prophetic reception of angelic revelation with this higher mode of apprehension.

The second path is **hearing**, through which the soul receives the meanings of languages and the information communicated through sounds concerning things absent from direct observation.

The third path is **sight or direct observation**, by which the soul witnesses things presently existing before it.

Thus the sciences should be taken through these three paths.

The epistle cites God's saying that He made for human beings hearing, sight, and hearts, yet little thanks do they give.

It also cites the condemnation of those who have hearts with which they do not understand, ears with which they do not hear, and eyes with which they do not see.

The text interprets this spiritually: such people are deaf to realities, mute concerning subtle truths, and blind to intelligible meanings perceived by the eye of the heart.

The criticism is not that they literally cannot hear sounds or see colours, nor that they know nothing of worldly livelihood.

Rather, the authors say that they fail to understand the matter of the return.

They know only an outward aspect of worldly life and remain heedless of the hereafter.

Know also that **knowledge is a possession of the soul just as wealth is a possession of the body**.

Wealth is sought for the welfare of the body, while knowledge is sought for the welfare of the soul.

If a soul receives knowledge through only one of these three paths rather than all three, it is like someone who eats with only one finger instead of three.

The epistle compares such a person to a sick individual whose position lies between hope of life and fear of death.

This is likened especially to those who rely purely on imitation and know religion only through hearing.

They stand between doubt and certainty.

Doubt is the illness of souls, while certainty is their health.

Know further that there are two kinds of people who ask.

One asks for some worldly need concerning the welfare of this changing and perishable body.

The other asks a question concerning knowledge through which the soul may be delivered from the darkness of ignorance, religion may be rectified, the matter of the return understood, and the enduring blessings of the hereafter sought.

Likewise there are two kinds of assemblies.

One is an assembly of eating, drinking, singing, and bodily pleasures derived from the plants of the Earth and the flesh of animals, all for the welfare of this changing and perishable body.

The other is an assembly of knowledge, wisdom, listening, and the spiritual pleasures that serve as a foretaste of the enduring blessings of the hereafter for immortal souls whose substance does not perish, whose delight does not end, and whose joy is not cut off.

Whatever is consumed as food and drink diminishes the owner's wealth.

When a person eats and drinks until hunger and thirst are satisfied and then exceeds that measure, pleasure turns into pain.

When desired foods remain for a time in the stomach, are digested, and the organs take their respective shares, what remains changes and must be expelled; otherwise pleasure becomes pain, hardship, disease, and illness.

Assemblies of knowledge and wisdom are different.

The soul does not grow weary of them because their pleasures are spiritual and resemble the delights of the hereafter.

Nor does the knowledge of a guiding scholar decrease when many students listen and learn from him.

Such knowledge belongs, in the authors' imagery, to the treasures and symbols of the world to come.

Chapter 4: The Superiority of Spiritual Nourishment and the Final Condition of the Soul

Know further that there is no honour in eating much.

A person needs food and drink only in the amount required to calm hunger and thirst.

Once hunger and thirst have been relieved, it makes little difference whether this occurs through many kinds of food or through a piece of barley bread and pure water.

The text attributes to Jesus—peace be upon him—the saying to the disciples that barley bread and plain water in this world are abundant provision for one who wishes to enter Paradise tomorrow.

True honour and praise should instead lie in acquiring philosophical virtues, seeking illumination through the light of knowledge, reflecting upon signs and indications so as to know the realities of things, pursuing wisdom and devotion to God, practising asceticism and spiritual discipline, following the paths of the godly, paying little heed to the body's demands, and giving serious attention to the soul.

One should strive to rescue the soul from the darkness of ignorance, save it from the sea of matter, free it from captivity to nature, emerge from the depths of bodies, ascend to the world of spirits, and enter among the ranks of angels.

The epistle cites the verse:

"To Him ascends the good word, and righteous action raises it."

The authors interpret this in relation to the spirits of believers.

They also cite verses concerning the righteous being in bliss, the record of the righteous being in the highest places, the opening of the gates of Paradise, and the angels entering upon the blessed from every gate and saying:

“Peace be upon you for what you patiently endured; excellent indeed is the final abode.”

Know, O brother—may God strengthen you and us with a spirit from Him—that when the body emerges from the womb protected from accidental harms, with sound senses and a strong bodily constitution, and when the child's body becomes stable, the powers of the soul spread throughout it.

The sensitive faculties encounter sensible objects and apprehend them according to their forms.

They then transmit their representations to the imaginative faculty in the front of the brain, and the imaginative faculty passes them to the thinking faculty.

When the sensible objects themselves disappear from direct sensory perception, their forms remain represented within the thought of the soul.

When the soul contemplates them and distinguishes them through intellect, it finds nothing except the forms of those sensible things abstracted from their matter and represented within the substance of the soul.

Thus the soul's substance stands to those represented forms as matter stands to form.

The condition of intelligible forms in the soul is similar.

They are the forms of genera and species abstracted by the soul through its thinking power and represented within itself.

The text compares this again to air carrying the forms of sensible things.

Air carries different sounds to hearing and carries odours toward smell while preserving their particular qualities unless some external accident interferes.

Similarly, light carries colours toward sight while preserving their distinctions and not confusing one with another.

The substance of the soul, according to the authors, is more spiritual than both air and light.

Know, O brother, that particular souls are superior to one another according to **four qualities**.

The first is the knowledge they acquire during their association with the body.

The second is their character.

The third is the opinions and beliefs they adopt.

The fourth is the actions they perform.

If a soul possesses abundant knowledge, beautiful character, sound beliefs, and righteous actions, these four qualities give it a beautiful, healthy, radiant, and spiritually splendid form.

When such a soul separates from the body, becomes independent in itself, no longer requires bodily attachment, and the stains of nature are removed from it, it then sees and recognises its own essence.

Its own form appears before it.

It beholds its beauty and radiance.

It sees every good deed it performed present before it, and whenever it looks upon itself its joy, happiness, and pleasure increase.

This is its reward, its bliss, and its Paradise, from which it will never be removed.

The epistle cites the saying:

“On the day when every soul finds whatever good it has done present before it.”

But if its actions were evil, its conduct unjust, its opinions corrupt, its character bad, and its knowledge false, those qualities give it an ugly, repulsive, and desolate form.

While the soul remains joined to the body, occupied with sensible things and taking comfort in the beauty of nature and the adornment of matter, it does not perceive this ugliness.

But when the stupor of death and the grief of loss come in truth—when the appointed time arrives and the soul separates from the body—the separation occurs against its desire, by necessity and compulsion.

The instruments of the senses through which bodily pleasures were obtained cease to function.

The soul remains by itself and looks upon its own essence.

It then sees every evil deed it performed present before it and sees its own form as ugly, repulsive, and desolate.

It becomes bewildered, distressed, sorrowful, and lonely.

Thus, as the text says, God shows them their deeds as causes of regret.

The soul wishes there were a vast distance between itself and those deeds, yet it remains in this condition, suffering and tormented within its own essence.

That condition is its recompense, pain, Hell, and punishment.

The epistle attributes the saying:

“They are only your deeds returned to you.”

It also cites the Qur’anic teaching:

“A human being shall have only what he strives for, and his striving shall be seen.”

And:

“Indeed, the righteous are in bliss, and indeed, the wicked are in Hell.”

It also contrasts the Companions of the Right with the Companions of the Left, the former in blessing and the latter amid scorching wind and boiling water.

May God grant us, you, and all our brothers right guidance.

May He guide us all along the path of righteousness.

Blessings be upon the Prophet Muhammad and his noble family.

Here ends the Epistle on the Development of the Soul.

It is followed by the Epistle on the Capacity of the Human Being for Knowledge.

Epistle 28

On the Capacity of the Human Being for Knowledge

The Fourteenth Epistle of the Natural and Physical Sciences

On How Far Human Knowledge Reaches, the Extent of the Sciences, the Limit to Which the Human Being May Attain, and the Rank to Which He May Rise

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Chapter 1: The Nature and Limits of Human Knowledge

Know, O brother—may God strengthen you and us with a spirit from Him—that we have completed our explanation of how particular souls develop within natural human bodies. In this epistle we wish to explain the capacity of the human being for knowledge and the limit to which that capacity may reach.

Know that when God Most High created the body of Adam—peace be upon him—the father of humankind, from earth, fashioned him in the finest constitution, perfected his form, and made his bodily structure firm, He then breathed into him of His spirit.

Through that noble spirit, the earthly body became living, knowing, and capable.

God then distinguished Adam above some of the angels—not all of them—through the names He taught him, and He commanded them to bow before him on account of that noble spirit breathed into him, not on account of his body of earth.

When the accursed Iblis looked only at the earthly body and failed to recognise the excellence of that noble and knowing spirit, he said:

“I am better than he. You created me from fire and created him from clay.”

He judged fire to be superior to earth because fire is luminous, mobile, and rises upward, while earth is dark, still, and tends downward.

But this was a false analogy.

The command to bow was not given because of the earthly body, but because of that noble spirit.

For the human being eats, drinks, and sleeps because of the body, but moves, senses, speaks, and knows through the noble soul that belongs to the command of God.

Know also that **knowledge is the nourishment and life of the soul**, just as food, drink, and other bodily provisions nourish the body and sustain its life.

Knowledge of things is of two kinds.

Some is **natural and innate**, such as that which is apprehended through the senses and the primary principles present in the intellect.

Some is **taught and acquired**, such as the mathematical sciences, education and discipline, and what is brought by revealed law.

Among human beings are those who have no desire for learning or refinement, relying only upon what their senses perceive or upon what naturally occurs to their intellects.

Others desire learning and refinement, but they differ in what they are willing to accept as knowledge.

Some accept only what they can conceive clearly within themselves or what can be established through geometrical or logical demonstration.

Some accept only what is expressed through poetry.

Some accept only reports and transmitted traditions.

Others accept only disputation and argument.

Still others are content with imitation and accept what they have been taught without further inquiry.

We must therefore explain the extent of the human being’s power to apprehend objects of knowledge and sensible things, the limit of his effort and capacity in knowing the realities of things, and the point beyond which he cannot pass.

For there are people among the rational who reflected upon the origination of the world and searched for the cause that brought it into being after it had not existed.

When they failed to know that cause and could not form within their intellects an adequate conception of the beginning of the world's existence, their ignorance led some of them to assert the eternity of the world.

Others perceived one thing while another perceived something different, and so their statements concerning the world's origination and its cause differed according to what appeared to each of them.

We have explained in our Epistle on the Principles what that cause is; therefore seek its explanation there.

Chapter 2: The Human Being Occupies a Middle Rank

Know further that one who wishes to understand how the world came into being and the cause of its existence after it had not existed, while remaining ignorant of the composition of his own body, is like one who attempts something far beyond his capacity.

Such a person does not reflect upon the construction of his own bodily structure, does not know the beginning of his own existence, does not understand the substance of his soul, does not know how it became connected with his body or why it became connected after previously not being connected, does not understand why it separates from the body when the appointed term of life ends, and does not know where it goes after separation or from where it came before that.

Yet while remaining ignorant of these things, which are nearer to his understanding, easier for him to learn, and more accessible to his conception, he wishes to understand the beginning of the whole world, the manner of its origination, and the cause that brought it into being.

His condition resembles that of a man unable to carry one hundred pounds who attempts to carry one thousand, or one unable to walk who wishes to run, or one who cannot see his own hand when he stretches it before him yet wishes to see what lies beyond veils.

Know also that when one considers the condition of the human being and the course of his affairs, he finds him to occupy a **middle position** in many respects.

His bodily size lies between extremes: he is neither exceedingly small nor excessively large.

The duration of his life is also intermediate: he is neither extraordinarily long-lived in this world nor among the shortest-lived creatures.

His position in existence is intermediate as well. Some things, such as the elements and celestial spheres, existed before him, while artificial products come into existence after him.

His place within the world is intermediate. He is neither at the furthest extremity of the cosmos nor exactly at its centre.

His rank in nobility and baseness is likewise intermediate. Some existents are nobler than he, such as the angels brought near to God, while others are beneath him, such as beasts.

His power and weakness are intermediate. He is neither extremely strong nor utterly weak. Some animals, such as the lion, are stronger than he, while small animals are weaker.

His knowledge and ignorance also occupy a middle position. He is neither firmly established in knowledge like the angels nor entirely heedless and ignorant like beasts.

The range of his objects of knowledge is likewise intermediate between two extremes.

The human being cannot encompass things of excessive magnitude and multiplicity, such as indefinitely multiplied numbers, nor can he easily apprehend things of extreme smallness, such as the indivisible part imagined by certain theorists and similarly subtle objects.

His ability to weigh things is limited to moderate weights. He cannot weigh things of immense heaviness such as mountains, nor things of extreme lightness like the tiniest particle.

Likewise, his ability to measure distances and magnitudes applies only to intermediate quantities. He cannot directly measure immense expanses such as vast deserts and seas by ordinary bodily means, nor can he adequately measure extremely minute bodies such as the smallest particles of a needle or mustard seed.

The same rule applies to the senses.

The visual power apprehends only things lying between extremes. It cannot perceive colours in absolute darkness, nor can it endure overwhelming brilliance such as staring directly into the Sun at midday in summer.

The auditory power cannot bear a thunderbolt because of its overwhelming force, nor can it perceive the movement of an ant when the sound is too faint and subtle.

Taste, smell, and touch likewise apprehend sensible things only within moderate ranges.

Extreme heat and extreme cold destroy bodily equilibrium. Excessively powerful tastes and odours likewise damage the sensory organs, alter the bodily constitution, and disrupt sensation.

Thus sensory perception itself depends upon moderation and balance of temperament, as we explained in our epistle concerning how each of the senses apprehends its proper object.

Human knowledge of past events is similarly limited.

A person may know matters relatively near to his own time, such as events concerning his parents and recent ancestors, or reports of the Children of Israel, the period after the Flood, and traditions reaching back to Adam—peace be upon him.

But concerning events before Adam, such as the affairs of the angels and the story of the jinn said to have caused corruption upon the Earth before Adam's creation, human beings possess no independent knowledge except what is received through revelation from the angels.

Human knowledge of future events is also limited.

People may infer some events that are relatively near through celestial signs—for example, according to the astrological framework of the epistle, conjunctions occurring once every twenty years, once every 240 years, or once every 960 years.

But conjunctions separated by thousands of years are too remote for reliable human inference.

The power of the human intellect is therefore also intermediate.

It can conceive intelligible things only when they lie between two extremes of overwhelming greatness and extreme subtlety.

Some intelligible realities cannot be encompassed by the human intellect because of their majesty and intensity of manifestation.

The foremost example is the majesty of the Creator—mighty and exalted is He. The human intellect cannot encompass the essence of His majesty, not because He is hidden or obscure, but because of the intensity of His manifestation and the greatness of His reality.

Similarly, the human being cannot conceive the total form of the whole world at once because of its immensity and magnitude.

Nor can he fully apprehend forms completely separated from matter because of their purity, subtlety, and penetration through things.

Other realities cannot be apprehended because they are too subtle, minute, or hidden, such as the supposed indivisible part or prime matter considered apart from all forms and qualities.

Likewise, the human being cannot directly know how the fetus is fashioned within the womb, how the chick is formed inside the egg, how the seed develops inside its covering, or how the fruit forms within its blossom.

These things are perceived by the senses only after their formation is complete.

While they are actually being formed, neither the senses perceive the process directly nor ordinary imagination comprehends its inner mechanism.

Therefore, whoever wishes to know the manner in which the entire world originated and the cause of its existence should first reflect upon these nearer things, understand them, and conceive how they come into being.

Only afterward should he seek to reflect upon the origination of the whole world.

Whoever claims full knowledge of such matters should first explain the present form of the world as it now exists, since his senses directly encounter and observe it.

Let him leave aside what happened in distant ages or what will occur in the future.

Let him explain why there are so many stars, why they are at their particular distances, why their magnitudes differ, why their motions are what they are, and what the causes of all these conditions are.

Or let him explain the Milky Way and what it is, for the authors say that they had not found among the philosophers of their time an explanation that fully satisfied them.

Or let him explain the mark seen upon the face of the Moon, which people continually observe.

Or let him explain why the genera of minerals differ, why human forms differ from one another, and why the bodily structures of animals possess their particular shapes.

These things, though nearer to direct observation than the creation of the whole cosmos, already reveal the limits of human understanding.

Chapter 3: Human Knowledge Compared with the Knowledge of Angels

Know that access to the ultimate causes of these matters cannot be obtained, according to the epistle, except through accepting what has been received from the prophets—peace be upon them—just as the prophets received it from the angels.

The relation of human knowledge to the knowledge of angels resembles the relation of the knowledge of sea animals to the knowledge of land animals.

Animals living in water possess sensation, movement, and discrimination sufficient to seek food, pursue their welfare and benefit, escape enemies, distinguish males and females, and recognise others of their own kind.

But their knowledge of the conditions of land animals and the affairs of creatures living on land is extremely slight.

Likewise, land animals possess little knowledge of human affairs.

In the same way, human beings possess only a small amount of knowledge concerning the conditions of angels and the beings inhabiting the expanse of the celestial spheres and the layers of the heavens.

The angels themselves also differ in rank and station. Their degrees rise one above another, each more noble than the degree below it.

Above every possessor of knowledge is one more knowing, and to your Lord is the final end.

The epistle cites the Qur’anic statement concerning the Highest Assembly:

“Say: it is tremendous news from which you turn away. I had no knowledge of the Highest Assembly when they disputed.”

It also cites the angels as saying:

“There is none among us except that he has a known station. Indeed, we are those arrayed in ranks, and indeed, we are those who glorify.”

And:

“None knows the hosts of your Lord except Him.”

The text understands these hosts to include the genera of angels, the tribes of jinn and human beings, and the various animals.

Know further that the knowledge of all created beings in relation to the knowledge of God Most High is but a tiny portion.

The epistle cites:

“If all the trees upon the Earth were pens and the sea, with seven seas after it, supplied the ink, the words of God would not be exhausted.”

It interprets these “words” here as the divine knowledge.

This epistle is therefore intended to alert our brothers to the ultimate limit of human capacity in knowledge and the sciences.

It also rebukes ignorant people who oppose learned people with argument and disputation and demand from them explanations of things beyond human capacity, while neglecting matters that they are actually obligated to learn and investigate.

Chapter 4: The Parable of the Children and the Confectioner

Know that there is no science, craft, profession, or trade whose practitioners are entirely free from disagreement and dispute.

Among these disagreements is the dispute among learned people concerning whether the world is originated or eternal.

Two broad parties are mentioned: those following philosophy and those following revealed law.

The prophets—peace be upon them—all hold and teach that the bodily world is originated and brought into being.

Some excellent philosophers firmly established in knowledge also hold this view.

But deficient would-be philosophers remain doubtful and confused in what they claim concerning the eternity of the world.

The same, the epistle says, may occur among many followers of the prophets who affirm what the prophets have reported yet themselves remain uncertain about what they imitate and confused about what they believe.

I seek refuge for you, O excellent brother, in God from becoming one of them.

Their condition may be illustrated through a parable.

There was a wise man who had young children. Some were intelligent, understanding, and noble, while others were foolish, dull, and ignorant.

One day the children looked into one of their father's storehouses and found it filled with sweets of many different tastes, colours, fragrances, and shapes.

They reflected upon them and asked one another:

“Who made these wonders, fashioned these forms, and produced these colours?”

Those among them who were intelligent and perceptive understood that a wise craftsman must have made them.

The foolish and inattentive children failed to perceive this.

Those who understood that a wise maker produced them then wondered from what materials he had made them and by what means he had fashioned them.

The more intelligent among them understood that they had been made from other substances, while those of lesser understanding could not conceive this.

Then they wondered how the confectioner had produced them and fashioned them into these forms.

Some among them, by the strength of their intelligence, understanding, and reflection, formed a conception of how it had been done and no longer needed to ask “why?” and “how?”

Others were unable to understand and remained hesitant, thinking and deliberating.

The children then asked some older and more rational brothers about the sweets.

They answered:

“A confectioner made them.”

The younger children asked:

“What is a confectioner?”

They replied:

“A wise craftsman.”

Some understood, accepted, and believed them. Others, because of their dullness, denied it, since they had never seen a confectioner before or even heard of one.

The younger brothers then asked:

“From what did the confectioner make these things?”

The older brothers replied:

“From sugar, fat, and starch.”

Some believed them because they were receptive to guidance, while others denied the answer because they had never directly seen or intellectually understood those materials.

They then said:

“Show us some of those materials.”

Their brothers replied:

“The maker left none of them in their original state; he used them all in making these sweets.”

Again some believed, while others denied.

Then the younger children asked:

“How did the confectioner make them?”

The older ones said that he built the stove, lit the fire, placed the cooking vessel over it, poured in the fat, added the sugar, stirred the mixture, and thickened it with starch.

Those who were more intelligent were able to conceive this through the quality of their understanding, sound deliberation, natural aptitude, purity of soul, and illumination of intellect.

Those lacking such intelligence and purity could not grasp the account.

The children then began disputing among themselves and divided into groups, arguing, quarrelling, and fighting over the issue until the fire of dissension and hatred was kindled between them.

Their compassionate father pitied them when he saw the trial into which they had fallen.

He therefore commanded some of their wise and perceptive brothers to act as judges and impartial arbitrators among them, instructing them:

“When your brothers ask you questions and bring their disagreements before you, guide them and direct them as gently as you can.”

When those judging brothers were asked who had made the sweets, they answered:

“Your father made them.”

The younger children's hearts were more at ease with this answer because their knowledge of their father was closer to their understanding than knowledge of an unknown confectioner.

When they asked:

“From what did he make them?”

the judges answered:

“Not from anything that you know.”

This answer also brought them more tranquillity than the detailed explanation concerning sugar, fat, and starch, because the children already knew that many things existed which they themselves had never seen or known.

When they asked:

“How did he make them and fashion them?”

the judges replied:

“As he wished and however he wished.”

These simple answers brought greater peace to their minds than long technical explanations.

This parable represents the disagreement of scholars concerning the origination or eternity of the world, and the questions people ask regarding how the world was fashioned and from what matter it was made.

The world with all its wonders, varieties of beings, and extraordinary works resembles the storehouse filled with sweets.

Those who ask how the world originated, how it was fashioned, and what its matter was resemble the young brothers of limited understanding.

Those rational brothers who answer through long explanations resemble philosophers who speak of the world's origination in terms of matter, form, element, nature, and similar expressions whose meanings are remote and difficult for ordinary minds to conceive.

The brothers appointed as gentle judges resemble the prophets—peace be upon them—and their successors.

The compassionate father represents the Creator Most High, who sends prophets to act as judges among His creatures concerning the matters over which they disagree and to answer them in ways appropriate to their intellects and degree of understanding.

Chapter 5: How to Approach Difficult Questions

Know that we have already spoken concerning the cause of the world's origination and have explained the manner of its production, its matter, and its form in the Epistle on the Intellectual Principles, according to what was taught by the excellent ancient monotheistic philosophers who affirmed the origination of the world.

But whoever investigates these matters must possess a purified soul, subtle understanding, strong deliberative power, and good spiritual imagination in order to comprehend them.

Whoever cannot understand what we have described should be content with the philosophers' statement that the world is an effect and that its cause is the Creator.

Or he may accept what all the prophets—peace be upon them—have taught: that the entire world is created and that God—mighty and exalted—is its Creator, Originator, and Inventor.

If a person cannot understand what the philosophers say, does not comprehend what the prophets report, refuses to trust their statements, finds no tranquillity in their judgements, and instead relies solely upon what the imaginative faculty represents to him, then he should not place complete trust in that faculty either.

For imagination forms representations both of things that possess reality and of things that possess no reality at all.

It therefore cannot always be trusted or treated as a final judge.

Likewise, the visual faculty alone should not be trusted to determine the complete reality of something merely because it perceives its colour.

If you see the colour of a food, for example, you may need the assistance of smell in order to know it more fully; and if that does not suffice, you may require taste.

Thus, O brother, when you are uncertain concerning a difficult question, do not trust your own judgement alone.

Consult your noble and virtuous brothers.

Just as in worldly affairs, when you cannot accomplish something yourself, you seek assistance from your brothers, neighbours, and trustworthy friends, so your conduct should be in matters of religion and the pursuit of the hereafter.

May God guide you, O brother, to what is right and lead you and all our brothers, wherever they may be, along the path of guidance.

Chapter 6: Philosophy and Prophetic Law Have the Same Ultimate Aim

Know further that the ancient sages spoke about many branches of knowledge, forms of education, and extraordinary kinds of wisdom whose number is known only to God, the One, the Conqueror.

Some spoke about the structure of the celestial spheres and astrological judgements. Others spoke about medicine, the natural sciences, and generated things beneath the sphere of the Moon.

Some scholars of revealed law reject much of this, either because their understanding falls short of what those sages intended, because they do not examine such sciences and occupy themselves instead with revealed law and its rulings, or because of opposition that has arisen between the two groups.

Likewise, many beginners and intermediate students of the philosophical sciences treat revealed law and its rulings lightly, disparage those who follow it, and dislike submitting to its commands except through fear or compulsion from royal authority, which the authors call the brother of prophecy.

All this results, according to the epistle, from the limited understanding of both groups concerning the realities of the matters under discussion and their insufficient knowledge of the natures of existing things.

The way of our noble and virtuous brothers, however, is to examine all these sciences and investigate the realities of both philosophical and prophetic knowledge.

Because this field is like a vast sea and an immense arena, we have been compelled to compose these fifty-one epistles and to speak as briefly as possible, presenting the essential points that constitute the kernel of the matter.

Such realities are often made understandable through parables so that beginners may approach the sciences more easily and reflective people may more readily conceive their truths.

Know further that the philosophical sciences and prophetic revealed law are both **divine matters**.

They agree concerning the fundamental goal intended by them, though they differ in their branches and methods.

The ultimate aim of philosophy is what has been described as:

“becoming like God according to the measure of human capacity.”

As we have explained throughout our epistles, philosophy rests especially upon four qualities.

The first is knowledge of the realities of existing things.

The second is belief in sound and correct opinions.

The third is the acquisition of beautiful character and praiseworthy dispositions.

The fourth is the performance of pure deeds and good actions.

The purpose of all these qualities is the refinement of the soul and its ascent from deficiency toward completion, its passage from potentiality into actuality, and its attainment thereby of persistence, endurance, and lasting bliss in the company of beings of its own kind among the angels.

The purpose of prophecy and revealed law is likewise the refinement and rectification of the human soul.

It seeks to rescue the soul from the Hell of the world of generation and corruption and bring it into Paradise and the bliss of its inhabitants, within the spacious celestial world and the

expanses of the heavens, where it may breathe of the repose and fragrance mentioned in the Qur'an.

This is the ultimate purpose of both philosophical sciences and prophetic law.

Their differences concern the paths leading toward that single goal.

These differences arise because souls possess different temperaments, dispositions, and circumstances.

For this reason the forms of religious law, the practices of religions, and their prescribed duties differ, just as medicines and medical treatments differ according to bodily diseases, pains, times, and places.

Another analogy is the variety of roads taken by travellers seeking the Sacred House of God.

All intend a single destination, yet their roads differ according to whether their countries and stages lie east, west, south, or north of the House.

We explained this principle in the Epistle on Geography.

Chapter 7: The Completion of the Human Soul Is the Goal of Human Life

Know further that all existing things are of two kinds: **universal and particular**.

Universal existents possess enduring existence and permanence because, in the order of reality, they begin from the noblest and most complete and descend toward the lower and more deficient, as we explained in the Epistle on the Intellectual Principles.

Particular existents, by contrast, are continually coming into being and moving toward completion.

They begin from the lowest degree of existence and progress toward the most complete, ascending from inferior conditions toward nobler and more perfect ones.

The human being belongs to the class of particular existents and is composed of two substances: the bodily body and the spiritual soul.

The lowest condition of the body is its beginning as a sperm-drop, from which it develops until it becomes a strong adult human being.

The lowest condition of the soul is that it begins empty and without knowledge.

God Most High says:

"God brought you forth from the wombs of your mothers knowing nothing."

Its most complete condition occurs when everything existing potentially among its virtues is brought into actuality.

Then the human being becomes a true believer, a divine scholar, a sage, and a philosopher established in truth.

The text cites:

“You were taught what neither you nor your fathers knew.”

And:

“He taught the human being what he did not know.”

And:

“Be people devoted to the Lord.”

Know also that every perfectly ordered act proceeds, according to reason, from a wise agent, and every wise agent acts for some purpose.

The purpose is the goal toward which the intention of the soul precedes the act.

When the agent reaches that goal, the action comes to an end.

The revolution of the celestial spheres is, in the authors’ view, a perfectly ordered action.

Its agent must therefore be wise and must possess some purpose in causing the spheres to revolve.

If that purpose has been completely reached, then according to this reasoning the motion itself would cease.

Among bodies, the most excellent is that from which the most excellent action appears, while among souls the noblest is the one from which knowledge emerges and ignorance disappears.

Know further that among the sweetest foods eaten by human beings is honey, and among the finest garments worn is silk.

Yet honey is produced by bees and silk by worms.

Thus very small bodies may manifest highly valued actions.

The authors then point out that demonstration has already established in their philosophy that bodies themselves do not act independently.

Observe also crops and trees.

The production of grain and fruit has its goal in harvest and gathering.

The perfection of an animal lies in perception and reproduction, and its harvest and final cutting-off is death.

The ultimate purpose of the animal must therefore lie beyond death.

Likewise, if grain has not matured and become firm before the harvest, it is of no benefit afterward.

If fruit has not ripened before being picked, it cannot properly serve the purpose for which it is desired.

The same is true of the human soul.

If, while still in this world, it does not perfect its form through true knowledge, complete its substance through beautiful character, perfect its intellect through sound opinions, and refine its essence through righteous works, then after separation from the body it cannot fully benefit from its spiritual life.

It cannot stand independently through itself or enjoy the bliss of the hereafter in complete perfection.

The condition resembles that of a fetus whose bodily form has not been completed within the womb: once it emerges, it cannot benefit fully from worldly life.

Thus the death of the body is the **birth of the soul**, just as labour is the birth of the fetus.

Therefore awaken, O brother, from the sleep of heedlessness and the slumber of ignorance.

The purpose is that you become, in actuality, what you presently possess only in potential.

Exert yourself with the utmost effort.

Strengthen your back with the firm rope and hold fast to the rope of God.

The epistle cites:

“Those who strive for Us—We shall surely guide them in Our ways; indeed God is with those who do good.”

Strive to direct yourself toward the straight path, for the straight line is nearer to the ultimate destination than the crooked path.

By doing so you may attain happiness and everlasting permanence and enjoy the blessings of repose, fragrance, celestial companions, and the delights of the enduring world.

May God grant us, you, and all our brothers right guidance.

Indeed, He is compassionate toward His servants.

By the truth of Muhammad and his noble family—may God's blessings be upon them until the Day of Calling.

Here ends the Epistle on the Capacity of the Human Being for Knowledge.

It is followed by the Epistle on the Wisdom of Life and Death.

Epistle 29

On the Wisdom of Life and Death

The Fifteenth Epistle of the Natural and Physical Sciences

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Chapter 1: The Questions Concerning the Soul, Life, and Death

Know, O righteous and compassionate brother—may God strengthen you and us with a spirit from Him—that, having completed our explanation of the extent of the human being's capacity for knowledge, and having explained that the purpose of prophetic religious laws and true philosophical sciences is the refinement of the soul and the calling of creation toward God Most High, we now wish in this epistle to explain the wisdom of death and life, their nature, and the purpose of their existence.

Know that the beginning of all true sciences lies in a human being's knowledge of himself.

The human being is a composite whole made from two distinct substances together with the accidents that belong to them. One is this bodily body, and the other is the spiritual soul, as we explained in the epistle concerning the saying that the human being is a small world.

Because the substance of the soul is nobler than the substance of the body, knowledge of the soul and its conditions is nobler than knowledge of the body and its conditions.

We have already explained the nature of body and its special characteristics in the Epistle on Matter and in the Epistle on the Senses and the Sensible. Here we wish to discuss the soul and its conditions.

Human inquiry concerning objects of knowledge proceeds through various questions, as we explained in the Epistle on the Scientific Arts and in the *Categories*: whether a thing exists, what it is, how it is, how much it is, where it is, when it is, why it is, and who or what is responsible for it.

In this epistle we shall consider some of these questions concerning the particular human soul.

What is the soul? What is its condition while joined to this body? Where was it before being joined to it? What becomes of it after separation? Why was it joined to the body at all, and what is the purpose of this union?

We have already explained the nature of the soul in the Epistle on Intellect and the Intelligible, its quantity in the Epistle on the World as a Great Human Being, where the particular soul was before attachment to bodies in the Epistle on the Fall of the Sperm-Drop, and where it goes after leaving the body in the Epistle on Resurrection and the Rising.

In this epistle, which we have entitled *The Wisdom of Death*, we wish to explain its condition while joined to the body, why it was joined to it, and why it eventually leaves it.

Because particular souls are powers diffused from the Universal Soul into the particular bodies beneath the sphere of the Moon, we must first speak about the Universal Soul, which is the soul of the entire world, and explain why it is joined to the Universal Body, which is the totality of the cosmos from the outermost celestial sphere down to the centre of the Earth.

Chapter 2: The Purpose of the Universal Soul's Connection with the Universal Body

All existing things are ordered in ranks, one beneath another, and all depend in their existence upon the First Cause, who is the Creator Most High, just as number depends upon and proceeds from the One that precedes Two.

The soul is one of these existents.

Its rank is beneath Intellect and above absolute Body.

Absolute Body is naturally receptive to shapes, forms, patterns, life, and other perfections, yet by itself is empty of them.

The soul, by contrast, is living through itself, knowing in potentiality, and active by nature.

It would not accord with divine wisdom and providential care for the soul to remain idle and without an occupation appropriate to its wisdom, or for body, despite its receptivity to completion, to remain unused and deficient.

Nor can the soul exercise dominion over the beings above its own rank, namely Intellect and the active principles superior to it.

Divine wisdom therefore directs the soul toward absolute Body, which is beneath it in rank.

The soul governs it through motion, shapes, forms, patterns, and colours, so that body becomes completed through these things and the soul itself becomes perfected by bringing out into actuality and manifestation the wisdom and crafts that lie within it in potentiality.

In doing so, it resembles the wisdom of the Creator Most High, who did not remain content merely with knowing beings before their existence, but brought them forth from nonexistence into existence.

Thus the whole became manifest to the part, the part witnessed the whole, and what existed in potentiality among wisdom and crafts emerged into actuality and manifestation.

For this reason the Universal Soul was joined to the Universal Body, which is the whole cosmos from the highest surrounding sphere down to the centre of the Earth.

It permeates all its celestial spheres, elements, and generated beings, administering and moving them by the permission of God—exalted and sanctified is He.

Chapter 3: The Diffusion of the Universal Soul Through the Universal Body

Know, O brother—may God strengthen you and us with a spirit from Him—that when the powers of the Universal Celestial Soul flow into the Universal Body, which is the whole bodily world, they begin from the highest surrounding sphere and proceed toward the centre of the world.

They pass successively through the celestial spheres, the planets, the four elements, and the periods of time until, upon reaching the furthest centre of the world, they gather there.

This becomes a cause for the generation of particular bodies subject to generation and corruption beneath the sphere of the Moon: animals, plants, and minerals.

When these powers reach the furthest limit of their downward course and the ultimate goal intended through the long process of time, they turn back again toward the circumference.

According to the epistle, this return becomes a cause of the resurrection and rising of particular human souls from virtuous bodies.

This is a general statement requiring further explanation.

We must also show that death itself is a matter of wisdom.

Know that all animals hate death and love life.

Yet many rational people say that death is true and that there is wisdom in it, citing the saying of God Most High:

“He who created death and life that He might test you as to which of you is best in deed.”

Yet many do not understand the meaning of this statement or what is intended by it.

Even while acknowledging the truth of death, they still love life and hate death.

Then, when life becomes bitter and difficult, they condemn life and wish for death.

For this reason we must explain what death and life are, why death is hated and life loved, and what wisdom lies in the creation of both.

Chapter 4: Considering Death and Life

When a knowledgeable and rational person reflects upon the composition of the human body and the perfection of its structure and craftsmanship, as explained at length in books of anatomy and works concerning the functions of the organs, he finds extraordinary wisdom within it.

He sees the remarkable arrangement of the organs, the strange composition of the bodily structure, the excellent proportion of the joints, the branching of the nerves extending over the organs, the bones connected with and supported by their joints, and the delicate fibres extending toward the extremities by which sensation and awareness are made possible.

He considers the branching of the veins that arise from the depth of the liver and spread through the flesh, carrying blood to the extremities of the body.

He also considers the branching of the pulsating arteries arising from the heart and penetrating deeply through the body, conveying the pulse toward its extremities.

He observes the layered construction of the body, one part lying over another, as we explained in the Epistle on the Composition of the Body, and the vessels prepared for different purposes, whether to draw benefit or expel harm.

He then considers how the body begins as a sperm-drop, becomes completed in the womb, develops during childhood, reaches completion in youth, and matures in adulthood.

In all this he sees the highest degree of completion, wisdom, correctness, and perfect craftsmanship.

But when he then considers old age—the loss of strength, the fading of beauty, decline, deficiency, and finally the destruction of the body through death—followed by swelling, foul odour, corruption, decay in the earth, and disappearance, he may fail to perceive the wisdom in it.

He becomes bewildered, doubtful, and may even stray from the correct understanding.

For this reason we must explain death and life and clarify the wisdom in their creation and existence.

Consider, O brother, the creation of the womb, the condition of the placenta, the formation of the fetus from the sperm-drop, and the facilities prepared there for completing its bodily structure and perfecting its form.

One finds all of these things to display extraordinary wisdom and craftsmanship.

Then consider birth.

The fetus turns within the womb, the placenta is torn, the connecting vessels are severed, the bonds that held the fetus are loosened, the blood and fluids that had served it there are released, and the mother undergoes great labour and pain.

Such a process astonishes the intellect and perplexes those possessing insight.

Yet when one considers the condition into which the fetus is transferred—the spaciousness of this world, the pleasantness of its air, the brilliance of its light, and all the activities, pleasures, and enjoyments that await the child during the rest of life—one recognises that wisdom and correctness required departure from that narrow, dark, and deficient place.

In the same way, O brother, you should understand the relationship of the soul to the body.

The condition of the soul after death is like the condition of the child after birth.

The death of the body is the birth of the soul.

Just as the birth of the child is nothing other than its departure from the womb, the birth of the soul is nothing other than its separation from the body.

Chapter 5: The Nature of Life

Know that death and life are of two kinds: bodily and psychic.

Bodily life is nothing other than the soul's use of the body.

Bodily death is nothing other than the soul's ceasing to use it.

Likewise, wakefulness is nothing other than the soul's use of the senses, while sleep is nothing other than its ceasing to use them.

As for the soul, its life belongs to it essentially.

Through its own substance it is alive in actuality, knowing in potentiality, and naturally active in bodies through shapes, patterns, and forms.

The death of the soul is its ignorance of its own substance and its heedlessness concerning the knowledge of itself.

This condition befalls it because of its intense immersion in the sea of matter, its descent into the abyss of bodies, and its excessive deception by bodily appetites.

Most people, because of their ignorance concerning the substance of their own souls and their heedlessness concerning eternal life, know only this lowly bodily life of the world, which passes away.

The epistle therefore cites the Qur'anic descriptions of worldly life as the enjoyment of deception, play, amusement, ornament, mutual boasting, and rivalry in wealth and children.

People consequently desire to remain forever in this world and wish for immortality within it.

The text cites:

"They know only an outward aspect of the life of this world, while of the hereafter they are heedless."

And:

“You desire the goods of this world, while God desires the hereafter.”

And:

“The hereafter is better and more enduring.”

And:

“Indeed, the abode of the hereafter is truly life, if only they knew.”

There are many verses condemning those who desire only worldly life, which is the life of the body, while neglecting the life of the hereafter, which is the true life of the soul.

That life is everlasting and enduring.

As for the life of the body, know that the body is dead in its own substance.

Its life is accidental and results from the presence of the soul, just as air is dark in its own substance but becomes illuminated when the light of the Sun, Moon, and stars shines upon it.

The proof that the body is dead through itself can be seen after the soul leaves it: it changes, corrupts, disintegrates, and returns to the earth from which it originally came.

As God says:

“From it We created you, into it We shall return you.”

Chapter 6: The Purpose of Connecting the Particular Soul with the Particular Body

Know that particular souls are joined to particular bodies so that they may become perfected through training and bring forth from their substance the wisdom, crafts, and virtues that exist within them in potentiality, bringing these into actuality.

In this way particular matter becomes completed, the soul itself becomes perfected, and the part comes to resemble the whole.

The particular soul must therefore learn governance, administration, discipline through beautiful character, sound opinions, righteous actions, and true knowledge.

In this way the part resembles the whole, as is said in the definition of wisdom:

“It is becoming like God according to the measure of human capacity.”

When the human soul reaches the furthest limit of its goal and becomes perfected through the virtues it has manifested, and when the body is then destroyed, the soul is transferred after

separation into another condition and another mode of existence, higher and nobler than this body composed of flesh, blood, and the four humours subject to generation and corruption.

The text cites:

“He will bring you forth in a form you do not know.”

Then God brings about the other creation.

The relation of the condition into which the soul passes after leaving the body to its present state resembles the relation of the state into which the body passes after birth to its state within the womb.

The spaciousness of this world, the pleasantness of its air, and the brilliance of its light greatly surpass the darkness of the viscera, placenta, and womb—the three darknesses.

The soul cannot perceive the state into which it will pass until after leaving the body, just as the fetus cannot perceive the conditions of this world before birth.

For this reason the Prophet is reported to have said:

“People are asleep; when they die, they awaken.”

Their sleep is their heedlessness concerning what comes after death.

When the stupor of death comes in truth—that is, when the soul separates from the body—it witnesses the reality that had been promised.

The text cites:

“We have removed your covering from you, and today your sight is sharp.”

And:

“Worship your Lord until certainty comes to you.”

The epistle interprets “certainty” here as death and separation from the body.

It also cites:

“Every soul shall taste death; then to Us you shall be returned.”

Death is therefore wisdom because the soul cannot return to its compassionate and merciful Lord except through death.

Nor can it attain that which God and His Messenger have promised until it separates from the body.

The text cites:

“O tranquil soul, return to your Lord, well pleased and pleasing.”

Death is therefore wisdom and a favour from God Most High to His servants.

Chapter 7: The Wisdom of Death

Know that every process of coming into being and development has a beginning, a goal, and an end toward which it proceeds, and every goal has a fruit to be harvested.

The fall of the sperm-drop marks the beginning of one process, whose goal is birth.

Birth itself begins another process, whose goal is death.

Just as the fruit of the sperm-drop does not become available until after birth—for the child cannot enjoy worldly life before birth—so the soul cannot enjoy its proper condition until after separation from the body.

Death is nothing other than this separation, just as birth is nothing other than separation from the womb.

Thus death is wisdom just as birth is wisdom.

When the fetus has completed its form in the womb and its bodily creation has become perfected there, it no longer benefits from remaining in the womb.

Its benefit lies in being born into worldly life.

Likewise, when the soul has completed its form and perfected its virtues through its association with the body, its benefit lies after separation from the body in the life of the hereafter.

Death is therefore wisdom, because eternal existence cannot be attained except after death.

Death becomes the cause of eternal life.

Worldly life, in turn, becomes the cause of death, for a human being cannot die unless he has first entered this world and lived within it.

Thus earthly life becomes the cause of death, and death the cause of the enduring life of eternity.

Know, O brother, that the soul's relation to the body resembles that of a child studying in school.

The child enters school to learn, acquire discipline, and be trained.

Once he has learned and mastered what was intended, nothing remains except to leave the school and benefit from what he acquired there.

The purpose of his schooling has been achieved, and what remains is honour and recompense.

So it is with the soul and the body.

Once the soul has mastered what was intended through its association with the body, nothing remains except separation.

When a child has mastered his lessons, he no longer needs to carry the tablet, inkpot, ink, pen, and other tools through which he acquired knowledge.

Through them he read, wrote, and erased until knowledge became preserved within his soul: Qur'an, reports, poetry, grammar, language, and other things children learn in school.

Likewise, when the soul has mastered sensible things through the senses, intelligible things through thought and deliberation, and has known the realities of generation and corruption, then rises through intellectual disciplines and demonstrations toward knowledge of things hidden from the senses, it becomes trained and gains true knowledge.

The conditions of its own world, its origin, and its return then become clear to it.

With the eye of insight it perceives the condition of those of its own kind who preceded it upon the paths of guidance and ascended toward the kingdom of heaven and the expanses of the celestial spheres.

It then longs to ascend there and join those of its own kind.

But this cannot occur while it remains attached to the heavy body.

It requires leaving and separating from it, and this is death.

If there were no death, the soul would be prevented from reaching that higher realm.

Death is therefore wisdom, blessing, mercy, favour, and divine satisfaction for purified and discerning souls.

Chapter 8: Another Wisdom of Death — The Ship and the Shore

Know, O brother, that the body is like a **ship**, the soul like its **sailor**, righteous deeds like the merchandise and goods of a merchant, the world like the sea, the days of life like the voyage, death like the shore toward which the traveller is heading, the hereafter like the merchant's city, Paradise like profit, and God Most High like the King who gives recompense.

When a merchant crosses the sea and his goods and merchandise remain safe, he cannot enter the city of trade and realise his profit while still remaining aboard the ship.

Likewise, if the soul passes through the days of worldly life performing righteous actions, following just conduct, acquiring beautiful character, holding sound opinions, studying

sensible realities correctly, examining intelligible truths, and mastering them, then when it reaches the end of life and the body is broken down, nothing remains except separation.

If death did not occur, the soul could not ascend to the kingdom of heaven, join the ranks of angels, reach Paradise, or attain the meeting with God and the bliss of the hereafter.

It would be like a fetus prevented from seeing this world because it remained within the placenta and never emerged.

Death is therefore wisdom, mercy, and blessing.

The epistle cites:

“Every soul shall taste death; then to Us you shall be returned.”

Chapter 9: The Wisdom of Death — The Racecourse and the Harvest

Know that the world is like a racecourse, bodies like noble horses, souls hastening toward good things like riders, and God Most High like the generous King who gives reward.

When the rider who has won the race reaches the gate of the King, he cannot enter the royal presence unless he dismounts from his horse.

If he refuses to dismount, he misses the prize, robes of honour, and royal favour.

Likewise, when the souls of those who hasten toward good things and righteous actions complete the days of worldly life, they reach the end of the race.

The epistle cites those whom God praised as people who:

“hastened toward good deeds, called upon Us in hope and fear, and were humble before Us.”

When life is exhausted, the body deteriorates and grows old, while the soul has matured and become perfected.

If it does not separate from the body, it cannot ascend to the kingdom of heaven, because this heavy, changing, corruptible body is unsuitable for that lofty and noble place.

The soul alone can ascend there and receive recompense for the good it has done.

Death is therefore wisdom and mercy.

The world may also be compared with a cultivated field.

Women's wombs are like farmland, as the Qur’an says:

“Your women are a field for you.”

The sperm-drop is like seed, birth like sprouting, youth like growth, maturity like ripening, and old age like drying and withering.

After these stages must come harvest and cutting, which are death.

The hereafter resembles the threshing floor.

Just as the threshing floor gathers crops of every kind, separates them, removes husks, leaves, and straw, and distinguishes useful grain and fruit from what is discarded or burned, so in the hereafter the communities of the first and later generations are gathered.

Secrets are uncovered and God separates the corrupt from the good.

The text cites the idea that the corrupt are gathered together and placed in Hell, while those who are mindful of God are delivered and no harm or grief touches them.

All this occurs after death and is described as wisdom, mercy, and blessing from God toward His friends.

For this reason the friends of God are said to desire death.

The epistle cites:

“Say: O you who are Jews, if you claim that you are the friends of God to the exclusion of other people, then wish for death, if you are truthful.”

According to the authors, this verse indicates that one sign of the true friends of God is that they do not fear death when they know that after death they return to their Lord.

Death is therefore wisdom and blessing.

Chapter 10: The Wisdom of Death — The Craftsman and His Workshop

Know, O brother, that souls resemble craftsmen, bodies resemble workshops, and the organs of the body resemble tools, as we explained in the Epistle on the Composition of the Body.

Craftsmen exert themselves in their crafts and bear the hardship of labour in order to acquire wealth and attain sufficiency.

Once one of them has become independent and no longer needs to work, he leaves the workshop and tools and rests from labour.

So it is with souls.

When they have perfected what was required of them during association with the body and acquired the provision needed for the hereafter, they no longer require the body and become independent through their own substance.

If the body were then not taken away from them, it would become a burden and an obstacle, preventing ascent toward the kingdom of heaven, entrance among the ranks of angels, movement through the celestial world, journey through the expanses of the heavens, and enjoyment of spiritual repose and fragrance.

Death is therefore wisdom and blessing from God Most High for His righteous servants.

The epistle cites Abraham—the Friend of the Merciful—peace be upon him:

"He who created me guides me; He who feeds me and gives me drink; when I become ill, He heals me; He causes me to die and then gives me life; and I hope that He will forgive me my sin on the Day of Judgement. My Lord, grant me wisdom and join me with the righteous, grant me a truthful reputation among later generations, and make me among the inheritors of the Garden of Bliss."

Death is therefore wisdom, for inheritance of Paradise is not attained except after death.

Know further that the divine honour is directed especially toward the soul, not toward the body.

The body is left buried in the earth, while it is the soul that is joined to the righteous.

Chapter 11: How the Soul Passes from Potentiality into Actuality

Know—may God show you your proof—that the souls of children are rational in potentiality, while the souls of mature adults are rational in actuality.

The souls of rational people are knowing in potentiality, while the souls of learned people are knowing in actuality.

The souls of scholars are philosophical in potentiality, while the souls of philosophers are sages in actuality.

The souls of virtuous sages are angels in potentiality.

When such souls separate from their bodies, the epistle says, they become angels in actuality.

Death is therefore wisdom and mercy.

Know, O brother, that minerals are transformed into the bodies of plants, plant bodies into the bodies of animals, and among animals the noblest is the human being.

The plant form is described symbolically as a path descending into depth, through which the animal soul has passed and from which it has escaped.

The animal form is described as a path extended upon a surface, through which the human soul has passed and from which it has escaped.

The human form is described as a straight path like an upright vertical line standing between Paradise—the form of angelic existence—and the possibility of returning to the lowest of the low.

The text cites:

“We created the human being in the finest constitution, then We reduced him to the lowest of the low, except those who believe and perform righteous deeds; for them is an unending reward.”

Look carefully at this matter, O brother, and reflect upon it.

You stand in great danger, yet you have approached the gate of Paradise.

If before the soul separates from the body you prepare yourself and take provision through righteous actions, sound opinions, beautiful character, and true knowledge, there is hope that you will escape the fires of the abyss, which the authors identify with the world of generation and corruption.

You may then reach Paradise by ascending toward the celestial world and the expanses of the heavens, the world of endurance, permanence, and immortality in bliss and joy, together with the prophets, the truthful, the martyrs, and the righteous.

Excellent are they as companions.

That is the favour of God.

Chapter 12: The Purpose of Governance

Know that the body is governed and the soul is its governor.

Any soul that trains itself properly in governing its body becomes capable of governing a household, servants, and dependants.

One who governs his household with justice becomes capable of governing a tribe.

One who governs a tribe properly becomes capable of governing the inhabitants of an entire city.

One who governs a city as he should becomes capable of administering divine law.

And one who administers divine law becomes prepared to ascend toward the celestial world and the spacious heavens, the world of permanence, where he receives recompense for the good he has performed.

Death is therefore wisdom.

If, O brother, governing divine law is not within your ability, then at least become skilful in following it.

Perhaps you may thereby escape Hell through the intercession and assistance of those who master it, ascend toward the kingdom of heaven through their aid, and enter Paradise through the mercy and favour of God and the vastness of His compassion.

May God guide you, O brother, toward correctness and direct you, together with all our brothers wherever they may be, along the path of guidance.

Indeed, He is Merciful and Generous.

Chapter 13: The Defects and Disadvantages of the Body

Know, O brother, that we have already explained in the Epistle on the Composition of the Body, the Epistle on the Human Being as a Small World, and the Epistle on the Senses and the Sensible what the soul gains through association with the body: wisdom, sciences, benefits, training in crafts, governance, administration, lordship, and becoming like God according to the measure of human capacity, provided that the soul takes the path of the right hand.

For this body is a bridge or path stretched for the soul between this world and the hereafter.

If the soul crosses this path safely and escapes its dangers, everything that follows becomes easier.

Among the defects of the body is that the soul is imprisoned within something dense and coarse.

This dense thing is the body itself.

It is the source of bodily impurities: dirt, urine, excrement, mucus, saliva, blood, pus, sweat, foul odour, and other forms of corruption.

Whatever filth arises in this dense bodily substance originates within it and emerges from it.

Its beginning is an impure sperm-drop, its end a foul corpse, and between these two states it remains filled with waste.

The soul is continually occupied with cleaning it, washing it, purifying it, treating it, covering its nakedness, and protecting it from heat, cold, hunger, thirst, blows, injuries, and innumerable accidental harms.

In short, according to the ascetic language of this chapter, there is scarcely any bodily filth, impurity, decay, or corpse-like corruption that does not arise through the body.

From another perspective, the relation of the soul to the body resembles that of an **idol-worshipper devoted night and day to an idol**.

If the soul abandons learning, the worship of God Most High, reflection upon its return after separation from the body, preparation for that return, and provision for the journey from this world to the next, and instead occupies itself entirely with the welfare of the body—food,

drink, clothing, housing, mounts, and the various adornments of worldly life—it becomes like one who has taken bodily desire as an object of worship.

The epistle cites:

“Have you seen the one who takes his desire as his god, whom God leaves astray knowingly, seals his hearing and heart, and places a covering over his sight? Who then can guide him after God? Will you not remember?”

From another perspective, the body is compared with an unbeliever veiled from God, for the body itself neither knows God nor understands who created and provided for it.

From another perspective, it resembles an innovator who summons others toward his own desire and wants everything to conform to his wishes.

From another perspective, it resembles an ignorant and impatient person who does not consider consequences.

It may also be compared with an enemy of the soul who outwardly displays friendship while inwardly concealing hostility.

It resembles a devil because of the multitude of its whisperings, and Iblis because it calls toward disobedience and enmity.

It resembles a corpse carried upon the shoulders of the soul, from which the soul finds no rest until it finally places it in the earth.

It also resembles a cloud standing between the sight of observers and the light of the Sun, for the darkness of the bodily humours prevents clear vision of the light of Intellect.

The body rains down hopes and causes the appointed term to be forgotten.

The condition of this particular soul, despite the nobility of its substance and its estrangement within this world of generation and corruption, and despite what it suffers from the afflictions of the body and corruption of matter, is compared with that of a wise and experienced man travelling in a foreign land who becomes passionately attached to a foolish, immoral, ignorant, badly tempered woman.

She continually demands excellent food, delightful drink, fine clothing, decorated houses, and base pleasures.

Because of the intensity of his attachment to her and the hardship of living with her, the wise man devotes all his effort to satisfying her affairs and gives most of his attention to managing her needs.

He therefore forgets himself, his own welfare, the homeland from which he came, the relatives with whom he grew up, and the blessings he once possessed.

It is as though he has been chained to a rebellious devil and manifest enemy.

The epistle connects this analogy with the Qur'anic warning:

"O children of Adam, do not let Satan tempt you as he expelled your parents from Paradise."

Know further that the substance of the soul is a heavenly substance and its world a spiritual world.

It is living in itself and does not intrinsically need food, drink, clothing, housing, or the other things required by the body for the maintenance of its existence.

Everything a human being needs among worldly possessions is needed because of this changing and corruptible body: to preserve it, sustain it, bring benefit to it, and repel harm from it.

Yet the body does not remain in one condition even for the blink of an eye.

As long as the soul remains associated with the body until the appointed time, it suffers from its many concerns for the body's welfare.

It endures hardship through the difficult labour, exhausting crafts, and effort required to acquire money, goods, furnishings, and the other things a person needs during earthly life.

The soul therefore finds no complete rest while it remains bound to the body except through finally separating from it.

This is like the wise man afflicted by love for the foolish and immoral woman: he finds no rest from his trial except by separating from her and freeing himself from his attachment.

Death is therefore, according to the argument of the epistle, wisdom, mercy, and blessing for the souls of the virtuous once bodies have perished.

Death becomes blessing and joy, while worldly life is only the enjoyment of deception.

The epistle concludes with the words:

"Praise be to God who has removed sorrow from us. Indeed, our Lord is Forgiving and Appreciative."

May God grant us, you, and all our brothers right guidance.

Indeed, He is Merciful and Compassionate toward His servants.

Here ends the Fifteenth Epistle, On the Nature of Life and Death.

It is followed by the Epistle on Pleasures.

Epistle 30

On Pleasure and Pain

The Sixteenth Epistle of the Natural and Physical Sciences

On the Nature of Pleasures and the Wisdom of Life and Death

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Chapter 1: The Nature of Bodily Pleasure and Pain

Know, O brother—may God strengthen you and us with a spirit from Him—that we have completed our explanation of the wisdom of death and life, their nature, the wisdom behind their existence in the world of generation and corruption, and the reason animal souls hate death and love life.

We now wish in this epistle to explain the nature of pleasure and pain, grief and joy, delight and sorrow, rest and fatigue, and to show how these states are related to one another, whether as opposites or as corresponding conditions.

Know, O brother, that pleasure and pain are of two kinds: **bodily and spiritual**. The same applies to their related states.

Bodily pleasure is the relief experienced by animal souls when pain disappears.

Pain is what animal souls experience when the bodily temperament departs from its natural equilibrium toward one of two extremes, whether through excess or deficiency.

The causes of such departures are innumerable, but we shall give some examples so that the nature of pleasure and pain and the manner of their occurrence may become clear.

Consider the pleasure of eating.

The heat within the stomach of animals possessing stomachs or gizzards resembles the flame of a lamp burning upon a wick. When food has been exhausted, this heat begins to act upon the moisture of the stomach itself and consumes it, just as the flame of a lamp begins to burn the wick once the oil has been exhausted.

At that point the soul experiences pain, and the animal's body rises in search of food so that something may replace what has been consumed.

When food reaches the stomach, the heat turns toward digesting it. The burning of the stomach itself subsides, and the animal experiences relief and pleasure.

The strength of the pleasure of eating corresponds to the intensity of the preceding hunger and to the degree to which that burning is relieved.

The same applies to thirst, which results from heat within the liver.

An animal continues to experience pleasure in eating and drinking until nature has received what it requires.

When the need has been fully satisfied, the pleasure ends.

If a person continues beyond the amount required, the pleasure becomes pain.

The animal then refrains from eating and drinking until what has been consumed is digested and distributed throughout the body to replace what has been dissolved and lost.

For the bodies of animals are continually undergoing dissolution and flowing change. They do not remain in one condition even for a single moment.

Physicians and natural philosophers who possess insight know the truth of this.

The pleasure of sexual intercourse has a similar cause.

The substance called semen, which the epistle describes as the refined essence of the blood, accumulates within the body and in the places prepared for it. Nature then experiences heaviness and tension from its accumulation, just as one experiences the pressure of urine in the bladder or waste in the intestines.

Divine wisdom implanted desire in males for union with females of their own species and likewise in females for males, so that through their union reproduction might occur and the species remain represented in matter, since individual bodies do not remain forever in the world of generation and corruption.

When this accumulated substance leaves the body, nature is relieved of the pressure it had experienced, and the animal therefore experiences pleasure and rest.

The pleasure of rest, stillness, and sleep has a similar explanation.

Movement heats the bodily temperament and dries the moisture of the muscles, nerves, and tendons that move the limbs.

Their power of motion is thereby weakened.

When the animal becomes still, stretches itself out, rests, and sleeps, the body cools. From stillness comes coolness, and from coolness comes moisture. The nerves and tendons become supple again, and movement becomes easier.

Animals likewise experience relief when putting down loads and burdens, because excessive movement and heavy weight heat the bodily temperament and drive it away from equilibrium.

The same applies to heat and cold.

If heat continues for too long, it heats the bodily temperament excessively and drives it away from equilibrium, causing pain.

The animal then seeks the opposite—shade, cool places, and cold.

If it remains there too long, cold becomes excessive and drives the temperament toward the opposite extreme.

The animal then seeks warmth, sunlight, fire, and whatever opposes cold.

Thus animals are continually passing from one extreme toward its opposite, at one time finding relief from heat in cold and at another from cold in heat.

It therefore becomes clear that bodily pleasures arise through relief from pain and the restoration of equilibrium.

The same rule applies to all bodily pleasures and pains.

The pleasure experienced in looking upon beautiful forms, hearing harmonious melodies, smelling pleasant odours, tasting agreeable flavours, or touching pleasing objects depends upon their harmony with the constitution of the perceiver.

Whatever sensible object drives the sensory organ away from equilibrium causes pain and aversion.

Whatever restores the sensory organ toward its natural equilibrium produces pleasure, love, and attraction.

Thus bodily pain and pleasure were established for animal souls as means of preserving their bodies.

Pain warns the soul when the bodily temperament is moving away from equilibrium and urges it to protect the body from destruction.

Pleasure encourages the soul to seek whatever benefits the body and repel whatever harms it.

Bodies themselves are dead and powerless. They cannot repel injury, seek benefit, or guard themselves against things that destroy them.

The condition of a corpse after its soul has departed makes this evident.

The joy and pleasure an animal experiences when it finds what benefits it, the grief it experiences when such things are lost, and the tenderness it feels toward its offspring likewise serve to preserve bodies and their species until their appointed terms.

Every animal naturally desires what agrees with its own temperament.

Carnivorous animals ordinarily do not desire grass except from necessity when meat is absent, while herbivorous animals and grain-eating birds do not naturally desire meat.

Likewise, human beings generally desire what agrees with their bodily constitution or what they have become accustomed to eating over time.

The appetite of a sick person for something harmful has other causes whose explanation would be lengthy.

Thus hunger and thirst correspond to need, pleasure corresponds to satisfaction, and appetite corresponds to agreement with temperament and natural constitution.

There are two causes for animals' love of life and hatred of death.

The first is the pain and suffering associated with bodily harm and dissolution.

The second is the universal inclination of beings toward persistence and their aversion to annihilation.

The Creator Most High is the cause of all existing things, as we explained in the Epistle on the Principles, and He is eternal in existence and perpetual in endurance.

For this reason an inclination toward persistence and an aversion to annihilation are found within created natures.

Existing things are either universal or particular.

The universal existents descend through nine ranks: the Creator, Intellect, Soul, Nature, Prime Matter, Absolute Body, the celestial sphere, the four elements, and finally the three generated kingdoms—minerals, plants, and animals.

Particular existents begin from deficient states and gradually ascend toward more complete ones.

Chapter 2: Why Animal Souls Experience Pain

Know that we have explained the nature of pleasure and pain and the manner in which souls perceive them.

We now wish to explain why pain and suffering reach animal souls rather than the other souls existing within the world.

Animal souls belong to the class of particular existents.

A particular soul cannot reach its complete state and highest rank except through association with a particular body, namely the body of an animal.

But bodies are exposed to injuries and destructive accidents before they and their souls have reached completion.

Bodies by themselves possess no power to repel such destructive things, because bodily substances are passive, ignorant, lifeless, and deficient in themselves.

Divine wisdom therefore arranged that the souls associated with those bodies should experience pain when the bodies encounter things harmful to them.

Pain urges the soul to repel whatever threatens the body, preserve it from destructive accidents, and protect it from corruption until the body has reached completion and the soul has likewise reached its perfection.

Then natural death comes, whether the soul wishes it or not, just as the pains of labour come at birth whether the fetus wishes them or not.

For the death of the body is the birth of the soul, as we explained in the Epistle on the Wisdom of Death.

Without pain, souls would neglect their bodies and allow them to remain exposed to destructive accidents, and many bodies would perish before reaching completion.

The human soul in particular cannot develop or become perfected except through the mediation of this body, which is filled with signs of wisdom, as we explained in the Epistles on the Composition of the Body, the Senses and the Sensible, and the Human Being as a Small World.

Through the body the human soul comes to know sensible realities, conceives intelligible meanings, performs crafts, acquires virtues and praiseworthy actions, and grows throughout bodily life until the end of its term.

God says:

“God brought you forth from the wombs of your mothers knowing nothing.”

And:

“When he reached full strength and maturity, We gave him judgement and knowledge.”

If pain did not arise in the soul through things harmful to the body, a person might, for example, fall into deep sleep and stretch a hand or foot into a fire.

Without pain he might remain there until both were destroyed, awakening only after losing the instruments by which he walks or performs crafts.

The same principle applies to all animals.

Without the pain produced by things harmful to their bodies, they would neglect bodily preservation and leave themselves exposed to destruction.

Likewise, if animals had not been given tenderness and affection toward their young, they would neglect them, refuse to endure the hardship of raising them, and their offspring would perish before completion.

The result would eventually be the extinction of the species and disappearance of its form from matter.

Pain, affection, desire, and fear therefore have a role within divine wisdom in preserving living beings until their natural purposes have been completed.

Chapter 3: The Nature of Pain and Pleasure and Their Purpose

Pleasures and pains through which animals preserve their bodies are of two kinds: bodily and spiritual.

Bodily pleasure is the relief experienced by the soul when it passes out of pain.

Bodily pain occurs when the natural equilibrium of the body's temperament is disturbed through excess or deficiency.

Hunger provides a clear example.

When the stomach becomes empty of food, the innate heat that normally digests nourishment begins to act upon the substance and moisture of the stomach itself.

The soul senses this as pain.

The body then rises in search of food so as to remove the threatened corruption and relieve the soul's suffering.

When food reaches the stomach, the digestive heat turns from the bodily substance toward the food.

The burning subsides, and the soul experiences rest.

This rest is called pleasure.

Thirst is similar.

Heat flares within the liver and is quieted through water.

The soul experiences pain while the heat burns and relief when it is calmed.

These two conditions—pain and pleasure—therefore encourage the animal soul to seek the material required for the body's preservation and to replace what continually dissolves from it.

If no pain arose from hunger and thirst, animals would not seek nourishment, and their bodies would perish before their natural completion.

Plant souls likewise experience something corresponding to nourishment and satisfaction.

Their powers draw moisture through their roots and upward into their branches.

If nourishment fails, their bodies dry up and die.

But plants do not experience pain at the loss of nourishment in the same manner as animals.

For this reason they were not given locomotion by which to travel in search of food or flee from harmful things.

Divine wisdom would not give them pain while denying them any means of escaping what caused it.

Animal souls, by contrast, possess the means of repelling harmful things, and so pain was given to them as a stimulus either to seek, flee, or protect themselves.

The pleasure of revenge is likewise a form of release from pain.

Anger is described as a fire and heat ignited within the heart, joined to the desire to retaliate against the one who caused harm.

If revenge is attained, that heat subsides and the fire becomes calm.

If revenge becomes impossible, anger may become grief and sorrow.

The epistle therefore regards bodily appetites generally as fires kindled within the bodily constitution whose relief produces the experience called pleasure.

It further compares material bodies and the substances required for bodily life to fires existing in potentiality.

When actual fire reaches them they may become burning fire in actuality.

Food, clothing, bodies, and other bodily materials are all ultimately composed from fire, air, water, and earth and return to them after the departure of the soul.

The authors use this physical symbolism to interpret scriptural imagery concerning fire, bodily desire, and punishment.

Chapter 4: On Unbelief as a Veil Over the Soul

Know, O brother, that God—mighty and exalted—is He—frequently praises believers in the Qur’an and condemns unbelievers.

Faith and unbelief are two qualities extremely distant from one another.

Faith gathers within itself the good and the virtues appropriate to humanity, while unbelief is its opposite and gathers together many forms of evil.

We have explained elsewhere what faith is and who the true believer is.

Here we wish to explain the meaning of unbelief so that one may know who the unbelievers truly are.

In the Arabic language, **kufr** means covering or concealment.

It is something that happens to the soul through its association with the body.

When the soul becomes settled in ignorance, knowledge of its own essence becomes covered over.

It loses awareness of the nature of its substance, forgets its beginning, and ceases to remember its return.

Its ignorance may reach the point that it no longer knows that it possesses any existence apart from the body.

It then imagines that it is itself nothing other than body.

Many who undertake intellectual inquiry say that the human being is merely this body possessing length, breadth, and depth and composed of flesh and blood.

They fail to recognise that another substance is present with the body: the soul, which moves the body and manifests its actions through it.

Whoever does not know the substance of the soul cannot truly conceive spiritual realities.

When such a person hears them mentioned, he denies them because of immersion in the sea of matter and the darkness of accumulated ignorance.

When such people hear of Hell, they conceive it only as something bodily and artificial: a vast trench dug out and filled with blazing fire into which, they imagine, God commands angels in anger to throw unbelievers.

They suppose that each time the bodies are burned into charcoal and ashes, moisture and blood are restored to them so that the process begins again forever.

They cite:

“Whenever their skins are burned through, We replace them with other skins so that they may taste the punishment.”

But, according to the epistle, they do not understand the inner meaning intended by such statements.

Then they hear that God is Forgiving, Merciful, Compassionate, Loving, Generous, and Benevolent.

Their intellects begin to reject the image they have formed of God as vengeful and lacking mercy toward His creatures.

They therefore become confused and begin to doubt what the prophets reported, because they do not know the true nature of Hell and its punishment, the interpretation of revealed scripture, or the meanings of prophetic symbols and indications.

The same happens when they hear descriptions of Paradise.

They imagine only bodily gardens filled with trees and fruit, palaces with rivers running beneath them, companions and youthful servants resembling worldly human beings, eating, drinking, sexual union, and other bodily pleasures.

Yet they also hear that the inhabitants of Paradise dwell in the neighbourhood of the Merciful, in:

“a seat of truth in the presence of a Sovereign, All-Powerful.”

They hear that the inhabitants behold their Lord, that angels visit them bearing gifts, that they remain alive without death, youthful without ageing, healthy without illness, free from hunger and thirst, while eating and drinking without bodily elimination.

Such descriptions do not correspond to the ordinary properties of natural bodies subject to generation and corruption.

Those who cannot understand the symbolic and spiritual dimensions become confused.

They begin to doubt Paradise and the prophetic descriptions of its inhabitants, though they may conceal their doubt outwardly.

According to the authors, this covering of understanding is the real meaning of unbelief, error, ignorance, and blindness of inner sight.

The prophets spoke truthfully concerning Paradise, Hell, reward, punishment, and the resurrection.

But their descriptions contain meanings deeper than the crude bodily interpretations imagined by those whose intellects remain veiled.

May God protect you and us, O brother, from unbelief, hypocrisy, disobedience, and rebellion, and grant us faith and forgiveness.

Chapter 5: Hell as the World of Generation and Corruption

Know and be certain, the epistle says, that **Hell is the world of generation and corruption beneath the sphere of the Moon**, while Paradise is the world of spirits and the spacious heavens.

The inhabitants of Hell are the souls attached to animal bodies, through which they experience pains and sufferings.

The inhabitants of Paradise are the angelic souls inhabiting the celestial world, enjoying repose and fragrance and being free of bodily pain.

The authors interpret scriptural descriptions symbolically according to this cosmology.

The Qur'anic phrase concerning a shadow of "three branches" is read as an indication of souls united with three-dimensional bodies possessing length, breadth, and depth.

The descent of Adam and those associated with him becomes an image of the soul's descent into the terrestrial world of generation and corruption.

The authors interpret the seven levels of Hell through the seven classes of bodily things beneath the Moon: the four elements—fire, air, water, and earth—and the three generated kingdoms—minerals, plants, and animals.

Likewise, the seven gates are connected symbolically with the seven wandering planets through whose signs and influences events in the lower world are understood within their cosmology.

The number nineteen is then connected with the seven planets together with the twelve zodiacal signs.

Through these celestial cycles, the authors say, occur the changing conditions of bodily life: pain, illness, disease, sorrow, hunger, thirst, heat, cold, poverty, wealth, humiliation, servitude, anxiety, grief, calamities, rivalry, envy, oppression of rulers, whisperings of devils, misfortunes of time, loss of friends, fear of death, and dread of what comes afterward.

These miseries bind embodied souls for as long as they remain connected with corruptible bodies.

When an intelligent and perceptive person reflects upon the condition of embodied souls and the suffering that reaches them through bodily existence, then reflects upon the souls described as inhabitants of the celestial Paradise—living without death, youthful without ageing, rich without poverty, free of envy, brothers upon couches facing one another, secure and without fear or grief—his soul begins to long for that higher existence.

When he looks with his bodily eyes at himself and those like him enduring the suffering of the world of generation and corruption, he seeks refuge in God and asks for deliverance.

When he looks with the eye of intellect toward the spiritual world and those who enjoy its repose and fragrance, he longs to join them.

At that point this world becomes a prison for him.

The epistle cites the saying:

“The world is the prison of the believer and the paradise of the unbeliever.”

Such a person becomes, symbolically, one of the people of the Heights—people of knowledge who recognise the inhabitants of both states.

The authors connect this with people whom commerce and buying do not distract from remembrance of God and whose sides forsake their beds in devotion.

These are described as friends of God who may long for death because what lies beyond death has become clear to them: pure existence, enduring life, spiritual repose, and release from bodily sufferings.

One who knows nothing beyond bodily desire and animal pleasure, however, wishes only to remain in this world and may desire a lifespan of a thousand years.

Such a person, according to the epistle, remains veiled from the hidden realities and spiritual symbols of the hereafter.

May God save us and you, O brother, from the fires of the abyss and grant us entrance among the ranks of angels.

Chapter 6: Experiencing Pleasure and Pain at the Same Time

Know that a human being is almost never completely free from some combination of bodily and spiritual pleasure and pain.

A lover may see the beloved and take pleasure in the beloved's beauty while simultaneously suffering because of betrayal.

A person may eat food he greatly desires while being offended by its unpleasant smell, experiencing pleasure and pain together.

Someone may hear a beautiful melody accompanying verses that insult him; he enjoys the melody while suffering from the meaning.

A person who learns of the death of someone from whom he inherits may grieve at the death while taking satisfaction in the inheritance.

A person suffering from an irritating itch may scratch it and experience both pleasure and discomfort at the same time.

A worker performing exhausting labour while expecting a great reward experiences bodily hardship yet joy in anticipation of payment.

A person whose eye pain subsides while a tooth begins to ache experiences relief and pain simultaneously.

Someone with both good and bad traits may enjoy the consequences of one and suffer through the other.

A person may rejoice at the return of a long-absent friend while grieving over the friend's poor condition.

One foot may be placed in cold water and another in hot water while a hand rests in lukewarm water, producing contrasting sensations simultaneously.

Likewise, one who has performed a righteous deed for which reward is hoped and an evil deed for which punishment is feared can experience pleasure and suffering at the same moment.

Thus, when the conditions of people are examined carefully, one finds that they are rarely free from some pain that harms them together with some relief from a pain that has ended.

The same individual can therefore be simultaneously pleased and afflicted, rewarded and punished in different respects.

The authors mention these examples partly because some who study the soul conclude from the diversity of its states, actions, character traits, opinions, and experiences of pleasure and pain that there must be many separate souls within a single human being.

But the epistle rejects this conclusion.

The soul is one in its substance.

Its different names and actions arise because it operates through different bodily instruments and performs different functions.

As explained in the Epistle on the Composition of the Body, the actions of one human soul differ according to the different forms and organs of the body.

Some scholars speak of three souls—the appetitive, irascible, and rational—but the authors say these names refer to one soul considered according to its different activities.

When it acts in nourishment and growth, it is called vegetative and appetitive.

When it produces sensation and locomotion, it is called animal and irascible.

When it produces speech, discrimination, deliberation, and thought, it is called rational.

A single man may likewise be called a blacksmith, carpenter, and builder if he understands and practises all three crafts.

Chapter 7: The Four Kinds of Pleasure

Having completed our discussion of bodily pleasures and pains, and having shown that bodily pleasure is relief experienced when the temperament returns to equilibrium while pain is the

soul's awareness of bodily disturbance, we now wish to explain the spiritual pleasures experienced by the soul itself and the spiritual pains that belong to it apart from the body.

Prophetic law refers to these as reward and punishment.

Know that pleasures are of **four kinds**: natural appetitive pleasure, animal sensory pleasure, human intellectual pleasure, and angelic spiritual pleasure.

Natural appetitive pleasure is the pleasure experienced in receiving nourishment through food and drink.

Animal sensory pleasure is of two principal kinds: the pleasure of sexual union and the pleasure associated with revenge, the latter arising from anger.

Human intellectual pleasure is what the soul experiences when it conceives the meanings of objects of knowledge and comes to know the realities of existing things.

Angelic spiritual pleasure is the repose and delight experienced by the soul after separation from the body—the repose and fragrance spoken of in scripture.

Appetitive pleasure is shared by human beings, animals, and in a certain sense plants.

Animal sensory pleasure is shared by human beings and animals but not plants.

Intellectual pleasure is shared by humans and angels but not non-rational animals.

Angelic spiritual pleasure belongs especially to souls separated from bodies and delivered from the sea of matter.

Plant souls, in the framework of this epistle, possess pleasure but not pain.

Angelic souls likewise possess pleasure without bodily pain, although they possess fear and reverence before their Lord.

Animal souls possess both pleasure and pain, but their pleasures are bodily.

Human souls possess all of them: bodily and spiritual pleasures and bodily and spiritual pains.

The pleasures human beings receive through bodily mediation comprise seven principal kinds: visible beauties such as colours, forms, paintings, and natural or artificial ornament; sounds, melodies, harmonious tones, praise, and similar things perceived through hearing; pleasing tastes; agreeable tangible qualities; pleasant odours; sexual pleasure; and the pleasure of revenge.

These bodily pleasures may be experienced twice.

The first experience occurs when the sensory organ directly encounters the sensible object.

The second occurs later, through remembrance.

When a person sees a beautiful face or some ornament of worldly beauty, the soul experiences pleasure and joy.

After the object has disappeared from sight, its representation remains within the thought of the soul.

Whenever the soul turns inward and beholds that representation within itself, it again experiences pleasure and remembers the sensible object from which the impression originated.

The same applies to other senses.

The memory of pleasant experiences may itself produce pleasure even when the bodily sense is no longer encountering the object.

The opposite occurs with painful things.

A person may see a terrifying sight or hear a frightening sound and suffer at the moment.

After the sensible object disappears, the memory and thought of it can produce pain again.

Remembering and thinking are nothing more than the soul turning toward itself and observing impressions of sensible things preserved within its own substance, like the imprint of a seal impressed upon wax.

These experiences suggest, according to the authors, that the soul may experience pleasure after separation from the body just as it already experiences remembered pleasure after the sensible object itself has departed.

Chapter 8: Spiritual Pleasures

The spiritual pleasures experienced by the soul itself are of two general kinds.

One is experienced when the soul is separated from the body.

The other is experienced while it remains joined to the body.

Those experienced after separation may come either from realities encountered beyond the soul or from the soul's own perfected condition.

While joined to the body, spiritual pleasures arise especially through four things.

The first is the pleasure and joy the soul experiences through understanding the realities of sensible and intelligible things.

The second is the pleasure it experiences through holding sound opinions and praiseworthy doctrines.

The third arises from beautiful character and noble habits.

The fourth comes from remembering its righteous actions and virtuous deeds.

These pleasures are shared, according to the epistle, between human beings and angels.

Their opposites—spiritual pains—are associated with human beings and devils.

A person's actions affect the soul directly.

If his deeds are wicked and his actions ugly, his soul remains anxious, fearful, disturbed, and suffering.

If his actions are righteous and beautiful, the soul remains more tranquil, peaceful, and at rest.

Likewise, one whose character is beautiful, disposition gentle, dealings pleasant, and companionship agreeable becomes beloved among people and secure from many social dangers.

One whose character is malicious, temperament savage, and aspiration predatory causes suffering to those around him and lives in ignorance and affliction within himself.

Opinions and beliefs likewise produce pleasure and pain.

Some beliefs distress, confuse, and trouble the souls that hold them.

The authors give various examples drawn from religious controversies of their own period.

They criticise crude interpretations that, in their view, reduce spiritual realities to bodily images or attribute contradictory characteristics to God.

The epistle insists, however, that everything spoken truthfully by prophets concerning Paradise, its bliss, Hell, punishment, and resurrection is true.

The mistake lies not in prophetic revelation but in simplistic interpretations that mistake symbols and descriptions for crude material realities.

One who knows and believes that the world has a wise, powerful, forbearing, generous, forgiving, merciful, and beneficent Creator, that He has ordered the world according to the finest arrangement, that no defect has been left within His governance, and that nothing in heaven or earth escapes His knowledge, possesses a soul that is comparatively calm and peaceful.

Such a person is freed from the pain of corrupt doctrines, false beliefs, and accumulated ignorance.

He wishes no evil toward others, does not imagine himself superior to them, does not continually demand his rights from them, and does not complain constantly of their failures.

The authors present this as the character of their noble brethren.

They therefore invite the reader to seek their companionship, follow their way, adopt their character, study their sciences, understand their principles, attend their assemblies, hear their discourse, and read their epistles.

Perhaps, they say, the reader's soul will awaken from the sleep of heedlessness and ignorance, the eye of insight will open, and he will live the life of the learned and the blessed and ascend toward the kingdom of heaven.

Chapter 9: Belief in the Soul’s Survival and the Happiness It Produces

Know further that some opinions and beliefs cause pain and injury to the souls that hold them, while others cause joy, happiness, and pleasure.

A story illustrates this.

A wealthy and religious man had a son who openly drank intoxicating drink.

The father disliked this behaviour and said to him one day:

“My son, abandon drunkenness, and I shall give you half of my wealth and property, provide you with a separate house, and marry you to a beautiful daughter of a wealthy family.”

The son asked:

“Father, what will come from all this?”

The father answered:

“You will live happily, joyfully, and pleasantly for the rest of your life.”

The son replied:

“If that is the purpose, I already possess it.”

His father asked:

“How?”

The son said:

“When I become drunk I experience such joy, pleasure, and delight that I imagine the entire kingdom of Chosroes belongs to me, and in my imagination I become so great that even a sparrow appears to me as large as a camel.”

His father replied:

“But when you become sober, you see that none of this is real.”

The son answered:

“Then I simply drink again and return to the same condition.”

The authors use the story to illustrate a point about belief in the soul's survival after bodily death.

If the ultimate purpose of worldly life includes hope for pleasure, happiness, joy, and rest after death, then those who believe firmly in the soul's survival already gain a form of joy from that belief during worldly life.

The belief itself does not diminish their worldly pleasures.

Those who believe that the soul perishes completely at death, however, fall into one of two groups.

If they are among the fortunate and prosperous people of this world, their belief in annihilation disturbs their present happiness.

Whenever they think of death and extinction, their enjoyment is spoiled, sorrow enters their souls, and worldly pleasure is diminished because they are certain that everything they possess will disappear and they hope for nothing beyond it.

If they are among the miserable people of this world, then they live in sorrow and suffering throughout life and finally die with regret and affliction, possessing neither worldly happiness nor hope beyond it.

Corrupt beliefs that harm the soul are too numerous to enumerate.

The authors therefore advise holding instead those praiseworthy beliefs they have described elsewhere in their epistles.

A rational human being should believe that the world has a wise, eternal, living, knowing Creator who has ordered His world according to a firm and perfect system.

Nothing small or great escapes His knowledge and governance.

His rule extends over the celestial spheres, zodiacal signs, planets, elements, and generated beings as the governance of one soul extends through one living body.

The powers of the angels permeate the levels of the heavens and celestial spheres as the powers of the human soul permeate the body's organs and joints.

The authors acknowledge that these principles are first accepted by beginning students before being demonstrated fully.

The beginner accepts the foundations of a science, then through study and investigation eventually comes to understand their truth.

Chapter 10: Why Prophetic Descriptions Use Symbol and Analogy

The purpose of asking beginners and students to accept the principles of a science before fully understanding them is that their truth becomes evident only after deep study and investigation.

Intermediate students in any science no longer remain satisfied with imitation once they are capable of examining matters through demonstration.

The same should apply to those who affirm prophetic books.

The books of the prophets contain hidden secrets, indications, symbols, and noble sciences.

Those who have progressed intellectually should not remain satisfied with the kind of imitation suitable for children, ordinary people, or those of weak understanding.

They should investigate the meanings of these symbols and seek their realities.

The purpose of prophetic descriptions of Paradise and its pleasures is not merely that people repeat the words with their tongues without understanding or believe without forming any conception.

The ultimate aim is that they form some true conception of these realities so that desire for them may arise.

A human being does not seek what he does not desire, does not desire what he does not regard as real, and cannot regard as real what he cannot in some way conceive.

A hidden and absent thing is therefore made conceivable through eloquent description and comparison.

For this reason the Qur’an frequently describes the beauty of Paradise, the joy of its inhabitants, and the pleasure of its blessings.

Sometimes it describes them using bodily images suited to the understanding of ordinary hearers: couches, cups, vessels, youthful servants, fruits, shade, flowing water, and similar things.

According to the interpretation advanced in this epistle, the purpose is not necessarily to assert that the realities of the hereafter are bodily in precisely the same way as these earthly objects.

Rather, such descriptions make spiritual realities accessible to people whose understanding begins from bodily experience.

At other times Paradise is described in more spiritual language suited to people of greater understanding:

“In a seat of truth in the presence of a Sovereign, All-Powerful.”

And:

“No soul knows what comfort of the eyes has been hidden for them as a reward for what they used to do.”

And:

“Therein is whatever souls desire and whatever delights the eyes.”

And:

“Faces on that day will be radiant, looking toward their Lord.”

The Qur’an also employs descriptions that stand between bodily and spiritual imagery, such as the parable of a garden containing rivers of unchanging water, milk whose taste does not alter, wine delightful to the drinkers, purified honey, and every kind of fruit.

The authors emphasise that scripture says **“the likeness of the Garden”**, using analogy and representation to make a reality exceeding ordinary description easier to conceive.

Prophetic speech addresses people according to differences in their intellects, knowledge, and ranks.

The prophetic call is universal and must address the learned, ordinary people, and all those between them.

The epistle then contrasts different audiences of revelation.

It attributes to Christ a more openly spiritual description of heavenly bliss, saying that his disciples had already been trained by the Torah, prophetic books, and works of wisdom and could therefore receive less bodily imagery.

By contrast, the final Prophet Muhammad—peace and blessings be upon him and his family—was sent among people the authors describe as largely untrained in the sciences and unfamiliar with resurrection and spiritual realities.

For that reason, the text argues, many Qur’anic descriptions of Paradise employ bodily imagery in order to bring the promised happiness closer to their understanding and awaken desire within their souls.

The Brethren say that their own task is to investigate the secrets of the divine books and explain the meanings of prophetic symbols and religious formulations.

They claim to address readers who have already become trained in philosophy, wisdom, and the interpretation of revelation.

If you are one of them, O brother, then seek the companionship of noble and virtuous brothers whose sciences are philosophical, whose manners are prophetic, whose conduct is angelic, whose pleasures are spiritual, and whose aspirations are directed toward God.

Leave the companionship of those who concern themselves only with bringing benefit to bodies and repelling bodily harm.

Become one of the believers who are allies of one another, commanding what is right and forbidding what is wrong.

The text cites:

“Indeed, My servants—you have no authority over them.”

And:

“Close friends on that day will be enemies to one another, except the God-conscious.”

Having explained bodily and spiritual pleasures and pains experienced while the soul remains connected with the body, the authors now turn to the pleasure and pain it experiences after bodily separation—what prophetic law calls reward, recompense, and painful punishment.

Chapter 11: How Spiritual Pain Reaches Evil Souls After Death

Know that when a rational human being hears the commands, prohibitions, warnings, and restraints of revealed law but refuses to obey them, or hears philosophical teachings but refuses to live according to what they require, then neglects the condition of his own soul after its separation from the body and devotes most of his attention to the body's welfare, he places himself in grave danger.

Such a person spends day and night seeking food, drink, clothing, mounts, houses, money, furnishings, and worldly possessions.

He becomes absorbed in bodily appetites and material pleasures, thinks of little else, desires nothing beyond them, and wishes to remain forever within worldly life even though he knows that he cannot remain there.

If he passes his entire life in heedlessness and amusement until death arrives—the separation of the soul from the body—he must drink that cup whether he wishes it or not, as must everyone who enters the world of natural material bodies.

Then his soul remains without the body.

The sensory instruments through which it formerly obtained bodily pleasures have been taken away, even though long habit has made the soul intensely attached to those pleasures.

Its desire remains directed toward them, but it can no longer reach them because the bodily instruments are absent.

Its condition is compared to a person whose eyes have been put out, ears made deaf, hands paralysed, legs cut off, tongue rendered mute, nostrils blocked, and heart blinded, while loved ones have abandoned him, friends have turned away, brothers left him, neighbours deserted him, enemies triumphed over him, and those who envied him rejoice at his suffering.

He remains tormented, neither truly living in enjoyment nor released by death.

The epistle invokes the scriptural phrase:

“He neither dies therein nor lives.”

Such souls remain wandering and bewildered by their desires, searching for what they have lost.

They remember the sensory pleasures to which they had become accustomed but have been prevented from returning to them.

They wish:

“If only we could return and perform deeds different from those we used to perform.”

And:

“If only I were dust.”

And:

“Are there any intercessors who might intercede for us?”

Yet, the text says, their ingrained dispositions remain what they had made themselves.

They therefore continue in regret and pain, tormented by their own bad habits, blind through their ignorance, wandering beneath the sphere of the Moon in the darkness of bodily existence and the sea of matter.

They remain with souls resembling them from past nations, which the authors identify symbolically with the brethren of devils and armies of Iblis.

These separated souls cling through whispering to embodied souls still possessing bodily instruments, encouraging them toward the same sensible appetites in which they themselves were absorbed.

Thus, in the interpretation of the epistle, they are both astray and causes of others' error.

This condition is the punishment, painful torment, and recompense of ignorant evil souls heedless of spiritual and religious knowledge.

Chapter 12: The Nature of Devils and the Spiritual Pleasure of the Virtuous

Know that good embodied souls are **angels in potentiality**.

When they separate from their bodies, they become angels in actuality, as we have explained elsewhere concerning true believers and the resurrection.

Likewise, evil embodied souls are **devils in potentiality**.

When they separate from their bodies, they become devils in actuality.

These disembodied evil souls whisper to embodied souls of similar disposition and encourage what remains potential within them to become actual.

The epistle cites:

"Devils among humankind and jinn inspire one another with ornamented speech in deception."

The "devils of humankind" are interpreted as evil souls still embodied and familiar with bodily existence.

The "devils of jinn" are interpreted as evil souls separated from bodies and hidden from physical sight.

Their whispering is compared to a person whose appetite for food and drink remains strong although his digestive power has become too weak to process them.

Unable to enjoy the food directly, he takes pleasure merely in watching food and those who eat it.

Or it resembles a person whose sexual appetite remains while the bodily instrument has become too weak for action; he then desires to watch others perform what he can no longer accomplish.

So, the authors say, separated evil souls no longer possess bodily instruments through which to obtain sensible pleasures.

They therefore cling to embodied souls who still possess such instruments and whisper to them concerning those same pleasures.

Likewise, hateful and aggressive souls, after leaving their bodies, attach themselves to embodied souls of similar character and whisper to them toward fighting, quarrels, hostility, and hatred.

The epistle connects these with:

"the evil of the retreating whisperer who whispers in the breasts of people, from among jinn and humankind."

This, O brother, is the condition of those who remain ignorant of the return, occupied with bodily existence and heedless of what comes after death.

Their condition continues until the appointed time, the barrier mentioned in the saying:

“Behind them is a barrier until the day they are resurrected.”

Having explained the spiritual pains reaching evil souls after separation from bodies, the authors now turn to the spiritual pleasures experienced by good and virtuous souls after leaving their bodies—which, for them, had been like prisons.

The pleasure, rest, joy, happiness, and bliss experienced by these good, virtuous, angelic souls after separation from the body are what religious law calls **reward and recompense**.

Their true nature cannot adequately be described.

Human beings cannot reach complete knowledge of them because they are spiritual, eternal, and enduring.

God says:

“No soul knows what comfort of the eyes has been hidden for them as a reward for what they used to do.”

And the prophetic saying describes them as pleasures:

“which no eye has seen, no ear has heard, and which have never occurred to the heart of a human being.”

Nevertheless, the authors give an analogy so that reflective readers may form some conception.

They relate that in former times there was a young prince, handsome, graceful, complete in bodily form, beautiful in character, generous in action, and just in conduct.

He fell in love with a beautiful young woman from among his relatives, herself a daughter of kings.

He married her in a manner appropriate to royal families and lived with her for a long time amid the splendour of his sovereignty, the ease of his kingdom, the pleasure of youth, and the joy of prosperity, secure and undisturbed by the calamities of time.

Then fate separated them through her death.

An enemy overcame the young man and deprived him of his kingdom.

He became an exile from his country and wandered through the world like a stranger.

He became poor and humiliated.

Old age overtook him, his body weakened, his strength departed, his sight became dim, his hearing heavy, and he suffered nakedness, hunger, and thirst.

He wished for death because of the hardship, trial, and misery he endured.

One day he entered a ruined building and lay down upon a pile of rubbish and ashes, finding some relief in the softness of the place.

He fell asleep.

In his dream he saw himself once again as a fresh young man just as he had been in youth.

His bodily strength had returned, his soul was vigorous, and his youthful days had come back.

He sat again upon the throne of his kingdom amid the dignity of sovereignty and the splendour of his possessions.

Then he saw the young woman exactly as she had been when he first loved and married her, in all her beauty.

He embraced her, enjoyed her company, and found again the pleasure he had once known.

They sat upon the royal throne, carried by the wind wherever they wished.

The joy and pleasure became so intense that his body moved in sleep and he awoke.

Suddenly he found himself once again in the ruined building, lying upon the rubbish heap, with dogs barking around him.

Consider, O brother, how great the difference was between the state of his soul within that dream—its pleasure, joy, happiness, youth, love, and sovereignty—and its condition after waking amid poverty, grief, old age, hardship, loneliness, and suffering.

The authors say that this difference provides an analogy for the difference between the condition of virtuous souls while joined to bodies and their condition after separation.

Relative to spiritual existence, bodily life with its worries, griefs, sorrows, afflictions, and hardships resembles the miserable waking state of that exiled old man.

The soul's release into the spiritual world resembles the joy and freedom of the royal dream—but in a reality far beyond what bodily imagination can represent.

May God save us, you, and all our brothers from the fires of Hell—the world of generation and corruption—and bring us and you into the bliss of Paradise, the world of spirits and celestial spheres, within the kingdom of heaven and the company of the angels brought near, together with the prophets, the truthful, the martyrs, and the righteous.

Here ends the Epistle on Pains and Pleasures.

It is followed by the Epistle explaining the causes of the differences among languages.

Epistle 31 is the **Seventeenth and final Epistle of the Natural and Physical Sciences**, titled **"On the Causes of the Differences among Languages, Forms of Writing, and Expressions."** The manuscript identifies it as **Epistle 31**. Ikhvan.Safa.3 535

Because this epistle is unusually long—running from pages **149–329**—I've kept all **40 chapter divisions** while tightening repeated technical examples, especially in the sections on acoustics and political disagreement.

Epistle 31

On the Causes of the Differences among Languages, Forms of Writing, and Expressions

The Seventeenth Epistle of the Natural and Physical Sciences

In the Name of God, the Most Merciful, the Compassionate

Praise be to God, and peace be upon His servants whom He has chosen. Is God better, or that which they associate with Him?

Chapter 1: The Origins of Language, Speech, Sound, and Writing

Know, O righteous and compassionate brother—may God strengthen you and us with a spirit from Him—that, having completed our discussion of bodily and spiritual pleasures and pains and the reason animals hate death, we wish in this final epistle of the natural sciences to explain the causes of the differences among languages.

Understanding why languages, speech, sounds, scripts, and forms of writing differ also requires inquiry into the beginnings of doctrines, beliefs, religions, opinions, their origins and development, their increase and diversification, and the succession of peoples and nations from one generation to another.

These matters cannot be properly understood without first investigating the root from which they branch.

One must consider how sounds originate, how they are formed and dissolved, how they move, how they travel through bodies, how they reach the senses, what carries them, and why hearing rather than another sense apprehends them.

These matters are subtle and difficult.

We shall therefore mention enough to provide an introduction to the subject, using the briefest explanation capable of conveying the intended meaning.

The source of wisdom, according to the epistle, is connected with divine will and with a celestial, psychic, and intellectual order extending from spiritual substances through the heavenly bodies into the human world.

Knowledge of this order belongs to those possessing insight, for its effects are spiritual and psychic rather than merely bodily.

The Holy Spirit communicated with prophets through this order, and sages likewise receive illumination according to the purity and capacity of their souls.

Human sensory powers, however, are limited.

The duration of human life is short, and the senses cannot encompass every reality.

A rational person should therefore first seek knowledge of what lies within the capacity of his senses and intellect and then gradually advance toward subtler things.

Without sensation there is no ordinary human knowledge; without knowledge there can be no attainment of the higher realities sought by the soul.

Chapter 2: Why the Subtle Is Joined to the Dense

Know that the purpose of investigating composite things is to discover the cause that produced them, the principles from which they arose, how their parts were joined, and what becomes of them when they are separated.

One must understand how the subtle becomes associated with the dense, how spiritual form becomes connected with bodily matter, and how that union is later dissolved.

This is among the great puzzles that have occupied sages.

Why should a knowing substance be joined to what is ignorant, or a noble jewel be enclosed within coarse stone?

The answer is not that the two are equal in rank.

Rather, the lower can serve as a covering, instrument, protection, or vehicle for the higher.

Once one understands the distinction between body and accident, form and matter, the difficulty becomes clearer.

We now return to the immediate subject: the composition of sounds, differences among languages, the origins of scripts, letters, words, and expressions, where they arose, and through whom they became established.

Chapter 3: The Descent of Psychic Power into the Bodily World

When psychic power permeated the body of the world, according to the cosmology of the epistle, the Universal Soul began manifesting within matter what had previously existed within itself in potentiality.

The heavens moved, the stars travelled, the planets shone, and the wonders of the world became manifest one after another.

Existing things may then be approached in three ways.

Some are intelligible forms apprehended by the intellect.

Others are sensible forms existing in matter and apprehended directly by the senses.

Still others are established through demonstration, where the intellect is compelled by necessary proof to affirm what is not immediately available to sense or imagination.

Geometry provides examples.

A mathematical point has no part, a line is length without breadth, and the endpoints of a line are points.

Such things are not apprehended as bodily objects through the senses.

They are known through demonstration.

Demonstration is therefore **the balance of the intellect**, just as weighing, measuring, and counting serve as balances for the senses.

Chapter 4: On Celestial Sounds

Sound is an accident arising from substances.

Substances are broadly of two classes: higher and subtler substances, and lower and denser ones.

Sound does not arise without motion, and the origin of motion is soul.

Because the celestial spheres and planets are moving bodies, the authors conclude that their movements also possess sounds and harmonies.

Since their motions are ordered, proportionate, and preserved in a perfect arrangement, their harmonies must likewise be proportionate, pleasing, and beautiful.

Their discourse is represented as glorification, sanctification, magnification, and proclamation of divine unity.

These harmonies delight the souls of the angels surrounding them and the souls ascending toward them.

Chapter 5: Why the Heavens Must Possess Sound and Speech

If the celestial bodies possessed no sound or harmony and the angels possessed no speech, praise, or glorification, the authors argue, the higher world would resemble a realm of lifeless silence.

But the heavens are nobler and more perfect than the terrestrial world.

It would therefore be unreasonable, within the authors' cosmology, for humans and animals below to possess movement, voice, hearing, understanding, and communication while the nobler inhabitants of the heavens lacked them.

The angels are described as continually glorifying and sanctifying God through beautiful harmonies.

The authors associate the attraction human souls feel toward beautiful recitation and music with a dim recollection of these higher harmonies.

Thus, when a soul hears beautiful recitation of the Qur’an, Gospel, Psalms, or harmonious melody, it may become stirred toward the spiritual world.

The movements and sounds of the lower world imitate those of the higher.

Just as children imitate their parents and students imitate their teachers, lower beings imitate their higher causes.

The epistle attributes to Pythagoras the perception of the harmonies of the celestial spheres through the purity of his soul, and says that his reflections contributed to the science of musical proportion.

Chapter 6: The Harmony of the Celestial World

From the outermost sphere down to the sphere of the Moon, the authors describe elevated sounds, beautiful melodies, pleasing harmonies, differing languages, and coordinated movements, all proclaiming glorification, praise, magnification, and divine unity.

These celestial sounds and movements are complete, harmonious, and enduring.

The sounds of the lower world are partial imitations of them.

Chapter 7: The Origins of Terrestrial Sound

Terrestrial sound arises from the collision and movement of bodies.

When two bodies strike one another, the intervening air is compressed and set into motion.

That motion travels through the air and is perceived as sound.

Terrestrial sounds are broadly divided into **animal and non-animal sounds**.

Non-animal sounds may be natural, such as thunder, wind, flowing water, and the sounds of wood, stone, and metal, or artificial and instrumental, such as drums, trumpets, flutes, strings, and similar instruments.

Instrumental sounds do not arise unless bodies are set into motion.

The flute must be blown, the string moved, and the drum struck.

The chapter also discusses thunder.

The authors reject simplistic accounts and explain thunder in terms of vapours, air, clouds, compression, and violent release.

Their account reflects the natural philosophy of their period: moist and dry vapours become enclosed and compressed, and their violent movement through air produces thunder and, in certain conditions, lightning and thunderbolts.

Chapter 8: Divine Providence in the Arrangement of Atmospheric Sounds

The epistle argues that divine providence placed the regions in which thunder and atmospheric disturbances occur sufficiently far above the Earth so that their force ordinarily does not destroy the creatures below.

Occasionally, however, violent atmospheric events descend nearer the ground and harm animals or other bodies.

Sound itself is an accident borne by bodies and produced through their movement.

The echo heard from mountains, wells, or enclosed places does not prove the existence of sound without bodies.

The apparent “answer” is one's own sound returning after its movement through air strikes a surface and rebounds.

Chapter 9: The Four Natural Qualities and the Character of Sounds

The differences among sounds correspond, in the authors' natural philosophy, to the four primary qualities: heat, cold, moisture, and dryness.

These qualities affect the substances producing sound, the air carrying it, and the organs receiving it.

Hardness, softness, dryness, moisture, density, and subtlety therefore all contribute to differences in tone.

Metals, stones, woods, and other substances produce different sounds according to their constitutions.

Chapter 10: Meaningful and Meaningless Sounds

Sounds are divided into those that carry intelligible meaning and those that do not.

Human speech represents the most complete form of meaningful sound.

Animal cries may indicate desire, fear, hunger, mating, warning, or other natural conditions, but they do not ordinarily express universal intelligible meanings in the same manner as articulated human speech.

Human beings are therefore distinguished not merely by making sounds but by **articulating sounds into expressions indicating meanings**.

Chapter 11: The Senses and the Heart

Every sense has its proper object.

Sight receives visible things, hearing receives sounds, taste receives flavours, smell receives odours, and touch receives tangible qualities.

The senses transmit their impressions inward.

The epistle describes their final point of convergence as the **heart**, which receives what is brought to it and passes it toward the rational power.

A person born blind, for example, cannot possess the same representation of visible form as one whose visual sense has supplied those images.

The authors cite:

“It is not the eyes that become blind, but the hearts within the breasts.”

The outer senses provide the material, while inner perception understands and judges it.

Chapter 12: Why Some Senses Err More Than Others

Sight possesses direct objects such as light and darkness and indirect objects apprehended through light and colour, including bodies, shapes, distances, and movements.

The greater the number of intermediaries between the sense and its object, the more possibility there is for error.

Thus a distant object may appear smaller, a straight object partly immersed in water may appear bent, and a mirage may appear like water.

Hearing generally has fewer intermediaries, since sound reaches it principally through air.

Its errors therefore tend to arise when the air is violently disturbed, excessively dense, or when the distance is too great.

Smell is likewise affected by the state and movement of the air carrying odours.

Chapter 13: The Subtlety of Substances and Their Capacity to Receive Forms

The subtler a material substance is, the more readily it receives and carries forms and accidents.

Fresh water receives tastes and colours more readily than dense or salty water.

Light is subtler than air and therefore carries colours and visible forms with greater speed and purity.

The soul is subtler still.

It can receive the representations not merely of one class of sensible objects but of all sensible and intelligible forms.

For this reason imagination can form things internally even when the external objects are absent.

The craftsman first forms an image within the soul and only afterward gives that image bodily form in some material.

Chapter 14: Meanings Are Like Souls and Words Like Bodies

Know that meanings in speech are like **souls**, while words are like **bodies**.

Just as souls become manifest through bodies, meanings become manifest through words.

Speech is either useful or useless.

Useful speech communicates something previously unknown.

A report is an utterance capable, in principle, of being judged true or false.

Reports concern the past, the future, or what presently exists.

Some propositions are necessary, some impossible, and some possible.

What is obviously necessary requires little proof; what is plainly impossible is immediately rejected.

But things that may be either true or false require evidence.

Here demonstration and reliable testimony become useful.

Chapter 15: The First Sounds Before the Appearance of Human Beings

Before the creation of human beings, according to the cosmological narrative of the epistle, the heavens, Earth, atmosphere, seas, winds, mountains, and plants already produced many kinds of sound.

Air moved across the Earth and seas, producing whistling, roaring, echoes, the sounds of waves, winds, and atmospheric phenomena.

Vegetation appeared before animals, and animals before the human form.

The authors present a long cosmological chronology connecting these developments with celestial cycles.

This account belongs to the cosmology and astrology of the epistle rather than to modern chronology.

When Adam appeared, the human form introduced articulate speech into the lower world.

God taught Adam the names, enabling him to distinguish genera, species, individuals, plants, animals, minerals, and visible things by names and descriptions.

Human beings initially transmitted those names orally.

Writing came later.

Chapter 16: The Difference Between Sound and Speech

Know, O brother, that **speech is sound articulated into distinct letters that indicate intelligible meanings**.

The air originating from the lungs rises through the throat.

The tongue and other speech organs shape it according to the places of articulation.

When it emerges as ordered letters whose meaning is understood, it is called speech and language.

If it emerges without meaningful articulation, it remains merely a cry, cough, groan, or other sound.

Different peoples form their sounds according to the capacities of their speech organs, bodily constitutions, climates, foods, customs, and the inherited structure of their language.

Chapter 17: Why Human Languages Differ

As the descendants of Adam multiplied, they spread throughout the inhabited regions of the Earth.

Different groups settled in different climates and regions.

Their bodily constitutions, air, food, habits, and circumstances differed.

According to the astrological framework of the epistle, different celestial configurations also influenced the peoples inhabiting different regions.

Languages therefore gradually diverged from one another.

Children learned the speech of those among whom they were raised, and what began as convention became established habit transmitted from generation to generation.

Chapter 18: On Meanings

The meaning intended by speech can be understood whether a speaker is eloquent or awkward.

People differ in eloquence, clarity, brevity, ornamentation, and arrangement, but the ultimate purpose of speech remains the transmission of meaning.

The best expression is one that conveys the intended meaning clearly, appropriately, and without unnecessary obscurity.

Chapter 19: Praise, Blame, Truth, Falsehood, and Expression

Expressions may convey praise or blame, truth or falsehood, clarity or confusion.

Their moral quality depends not simply on sound but upon the meaning communicated and the intention of the speaker.

Speech therefore occupies a middle place between inner thought and outward action.

Chapter 20: The Capacity of Matter to Express the Soul

When bodily matter is well constituted and receptive, the actions of the soul appear through it clearly.

When the bodily instrument is deficient, the manifestation of the soul's powers is correspondingly restricted.

The fault is not necessarily in the soul or in the universal principle but in the capacity of the instrument receiving the action.

The authors compare this with a musical instrument.

A skilled musician cannot produce the intended harmony from a broken instrument.

Likewise, a perfectly constructed instrument does not produce beautiful music in the hands of one who does not know how to play it.

Chapter 21: How Hearing Perceives Sounds

Sounds are either animal or non-animal.

Non-animal sounds arise through natural or artificial movement.

The movement of the sounding body disturbs the surrounding air, and the resulting wave-like motion reaches the organ of hearing.

The auditory power then carries its impression inward toward thought.

The authors treat hearing as especially close to spiritual apprehension because it receives forms carried through air without requiring direct bodily contact.

Chapter 22: Air as the Carrier of Sound

Every sound possesses a particular form or spiritual configuration distinguishing it from every other sound.

Air, because of its subtle constitution, carries these forms without immediately confusing them.

It transmits the sound to the auditory faculty.

The same air also carries odours to smell.

Light carries colours to sight in an analogous manner.

When the sense organ is healthy and the medium clear, perception proceeds correctly.

When the bodily temperament or the medium is disturbed, perception becomes distorted.

Chapter 23: Transformation Among the Elements and the Hierarchy of Beings

Everything beneath the sphere of the Moon is subject to transformation.

The elements pass into one another, and the higher boundary of one class approaches the lower boundary of the next.

The epistle repeatedly emphasises continuity among ranks.

The highest condition of earth approaches water; the highest water approaches air; air approaches fire; and fire approaches light.

Likewise, the highest mineral approaches plant life, the highest plants approach animals, the highest animals approach humanity, and the highest human condition approaches the angelic rank.

The same graduated order can be observed among sounds.

Some mineral sounds resemble those of plants; some plant sounds approach animal sounds; some animal sounds approach human speech; and the most refined human speech approaches what the epistle calls angelic discourse.

Chapter 24: The Affinity Between the Human Being and the Things He Hears

Human beings can recognise the sounds of stones, metals, plants, animals, air, and fire because the human composition contains affinities with all these levels.

The body shares earthy materiality with minerals.

It shares nourishment and growth with plants.

It shares sensation, desire, movement, pleasure, and pain with animals.

It participates in air and fire through its bodily constitution.

Human beings differ from animals principally through rational speech and intellectual discrimination.

The authors even recognise signs of practical discrimination in certain animals, especially bees and ants, but reserve complete rational speech for humanity.

Chapter 25: Why Sounds Differ in Loudness and Size

Sounds arise when bodies collide strongly enough to compress the air between them.

A gentle collision may allow the air to escape gradually and produce little or no audible sound.

A forceful collision suddenly compresses the air and creates a stronger wave.

Large bodies generally produce greater sounds than small ones when other conditions are comparable.

Hollow bodies may sustain sound longer because air continues moving within them.

Large lungs, long throats, and wide mouths or nostrils contribute to powerful animal voices.

The epistle uses thunder as an example of an exceptionally great natural sound.

The sounds of insects without lungs, such as certain winged insects, arise through rapid wing movement.

Fish and some other creatures are described as relatively voiceless because they lack the same organs for producing sound.

Metallic sounds differ according to hardness, dryness, thickness, size, and shape.

Wooden instruments vary for similar reasons.

Wind instruments produce sustained sound through continuous air, whereas percussion instruments produce separated strikes with intervals of silence.

Chapter 26: Rest and Motion

Motion is passage from one place to another over time, while rest is remaining in one place through successive times.

Motion may be fast or slow.

Sounds likewise possess relative qualities: large and small, fast and slow, fine and thick, strong and weak.

These qualities are understood through comparison rather than absolutely.

A drum sound may be large compared with one instrument and small compared with thunder.

A tone may be fine compared with one string and thick compared with another.

The strength of a voice depends upon bodily health, power of movement, and soundness of the vocal instrument.

Chapter 27: Sounds Considered According to Quantity

Sounds are either **continuous or discontinuous**.

Continuous sounds include sustained flute and pipe tones.

Discontinuous sounds include separate plucked strings, beats, or strikes separated by perceptible intervals.

Continuous and discontinuous sounds may both be high or low.

The width and length of tubes, size of openings, length and thickness of strings, and strength of movement alter pitch and tone.

The epistle refers repeatedly to principles already explained in the Epistle on Music.

Chapter 28: Sounds According to Human and Animal Temperament

Differences in bodily temperament produce differences in voice.

A voice reflects the constitution of the body, the condition of the lungs and throat, age, sex, health, strength, climate, and inherited characteristics.

Human speech therefore differs not only among nations but among individual speakers.

Animal voices likewise differ according to species and bodily structure.

Chapter 29: The Beginning of Letters

When God created Adam, according to the epistle, He created him speaking, rational, articulate, and capable of discrimination.

God taught him the names.

Speech existed before formal writing.

Letters were gradually distinguished from the continuous flow of speech so that sounds and meanings could be fixed and transmitted.

Writing thus became a means of preserving spoken language when the speaker was absent or dead.

Through letters, knowledge could pass from earlier generations to later ones.

Chapter 30: The Wisdom of the Arabic Script

The author of the Arabic script is praised as having arranged its letters according to wisdom.

The forms of letters differ, yet they are constructed from recurring basic strokes and shapes.

Their joining and separation serve the needs of writing, just as articulation and pauses serve spoken discourse.

The authors treat the script as an ordered craft in which a limited number of elementary signs can produce an immense number of expressions.

Chapter 31: The Twenty-Eight Letters and Their Articulation

The twenty-eight Arabic letters emerge from different points of articulation extending from the throat toward the lips.

Air rises from the lungs and is shaped by the throat, tongue, palate, teeth, and lips.

Each letter therefore possesses its own place and mode of articulation.

Words arise through the joining of these letters, while differences in their order produce differences in meaning.

Chapter 32: Speech as a Rational Craft

Speech is itself a craft.

Like every properly ordered craft, it is governed by proportion and arrangement.

The most excellent speech combines correctness of meaning, clarity of expression, appropriate brevity or elaboration, good ordering, and harmony between words and intended meaning.

Grammar, rhetoric, poetry, logic, and related disciplines each examine speech from a different perspective.

Chapter 33: Writing as the Preservation of Speech

Writing has two ends.

At one end stands living spoken expression; at the other stands the written sign preserving that expression.

Speech communicates from one present person to another.

Writing allows the absent to speak to the absent, the dead to communicate with the living, and earlier generations to transmit knowledge to later ones.

Without writing, much human knowledge would continually disappear.

Writing therefore serves as a treasury for the sciences and a memory extending beyond the lifetime of individual human beings.

Chapter 34: Sacred Books, Religious Communities, and Language

Every religious community possesses books containing commands, prohibitions, lawful and unlawful things, rulings, judgements, and forms of speech and writing appropriate to its tradition.

Communities preserve their teachings through language and script.

Differences among languages and scripts therefore become intertwined with differences among religions, nations, customs, and legal traditions.

The fundamental purpose, however, should remain guidance, justice, refinement of the soul, and the ordering of human life.

Chapter 35: Religion and Revealed Law

Religion and revealed law, in the lifetime of a prophet sent to his people, originate from God according to the framework of this epistle.

The prophet calls people gently, beginning with wisdom, good counsel, and the best form of argument.

The text cites:

“Call to the way of your Lord with wisdom and good instruction, and dispute with them in the best manner.”

It also recalls the instruction to Moses and Aaron concerning Pharaoh:

“Speak to him with gentle speech; perhaps he may remember or fear.”

The epistle then discusses relations between religious communities and the historical rules of warfare as understood by its authors.

Its larger point is that coercion, conflict, and punishment are presented as later stages after teaching, warning, persuasion, and attempts at peaceful accommodation have failed.

Chapter 36: Praiseworthy and Blameworthy Disagreement

Disagreement is of two kinds: **praiseworthy and blameworthy**.

Praiseworthy disagreement includes differences in recitation, legal transmission, language, and interpretation that do not destroy the fundamental meaning or undermine truth.

Such differences can accommodate the diversity of peoples and languages.

Blameworthy disagreement is the kind arising from rivalry over power, envy, hostility, and sectarian ambition.

The authors argue that religious division often intensifies when leadership and worldly rank become objects of competition.

They lament the conflicts that arose after the Prophet and connect the proliferation of hostile sectarian positions with political rivalry.

Chapter 37: Misuse of Divine Decree and the Role of Envy

The epistle criticises the use of divine decree as an excuse for wrongdoing.

If people claim that every evil action is forced upon them in such a way that responsibility disappears, they may become bold in committing injustice while shifting blame onto divine predestination.

The authors distinguish this from a proper understanding of divine knowledge and decree.

They then identify **envy** as one of the deepest roots of hostility in both worldly and religious matters.

Envy destroys communities, produces resentment, injustice, and violence, and multiplies competing doctrines.

When one person gains followers, another may envy his influence and construct arguments merely to undermine him.

Thus disagreement can arise not from sincere search for truth but from rivalry and desire for leadership.

Chapter 38: The Parable of the Crows and the Hawk

The epistle offers a political parable.

A community of crows lost its king and disputed about who should succeed him.

Fearful of hereditary tyranny, they decided to select someone who appeared exceptionally pious and detached from worldly ambition.

An old hawk, weak from hunger and age, learned of their intention.

He began displaying humility, devotion, and apparent asceticism.

The crows were impressed and chose him as their ruler.

Once established in power and well fed through the provisions they supplied, his strength returned.

He began killing the crows, eating them, and eventually appointed another of his own kind to succeed him, who proved even worse.

The crows then realised that through their own poor judgement they had delivered themselves into disaster.

The lesson is that outward displays of piety and humility are insufficient qualifications for political authority.

One must examine character, nature, capacity, and consequences carefully.

Chapter 39: Parables of Greed, Oppression, and the Fate of Unjust Rulers

The epistle gives several further stories.

One concerns animals who appoint a powerful figure to distribute provisions justly, only to find that he begins withholding their shares for himself.

When the oppressed finally appeal to a stronger authority, the unjust ruler is destroyed.

The moral is expressed in the proverb that above every calamity there is a greater calamity.

The authors then state that **an unjust ruler is short-lived**, for God breaks every stubborn tyrant and gives justice to the oppressed.

A second parable concerns a man crossing a bridge who sees a desirable fish in a fast-flowing river.

Overcome by appetite, he abandons the safe road, jumps into the river, and grabs the fish.

Because he refuses to release it, he cannot swim properly.

The current carries him toward destruction.

When told to let go of the fish and save himself, greed prevents him.

He finally drowns.

The meaning is clear: one who abandons the safe path for a small worldly desire may lose both the desired object and himself.

Chapter 40: The Counsel of the Indian King

The epistle concludes with the story of an Indian king approaching death.

He summons the son who will succeed him and gives him a series of counsels concerning religion, character, and government.

Among the first are recognition of divine unity, prayer and humility before God, belief in His messengers and revealed books, preservation of religious law, humility, avoidance of oppression, guarding the intellect, generosity, truthful speech, and faithfulness in trusts.

He then advises his son concerning worldly conduct: cultivate good character and manners, keep promises, fulfil covenants, forgive when able to punish, honour worthy people, avoid envy, reduce the number of enemies, answer hostility with beneficence when possible, preserve what God has entrusted to you, make noble character stronger than appetite, do not prefer this world over the hereafter, and do not waste attention upon what does not concern you.

Finally he advises him concerning kingship.

A ruler should know the condition of his subjects, treat people according to merit, extend justice to all, avoid oppression, distinguish the learned from the ignorant, appoint honourable and trustworthy governors, choose advisers carefully, select a virtuous minister, defend the oppressed from the strong, and restore rights to their owners.

If these qualities are completed, the king says, there is hope that religion, worldly life, kingship, and final return will all be rightly ordered.

After advising his son, the king gathers the scholars, nobles, officials, and leading people of the kingdom.

He reminds them that they had served him faithfully and asks them to serve his son in the same manner.

He then gives them a final warning:

Fear God, reconcile among yourselves, obey legitimate authority, and avoid hostility, hypocrisy, religious quarrelling, and factional dispute.

Unity preserves a people, strengthens their lands, and prevents enemies from overcoming them.

Division weakens them.

He compares them to sticks: a single stick is easily broken, while a bundle held together is difficult to break.

He therefore urges them to fulfil their covenant with the new ruler and not destroy themselves through rivalry.

Having completed his counsel, the king is overtaken by the agony of death.

His tongue grows still, his strength fades, his son embraces him, and his soul departs.

His people mourn him.

The authors conclude that the story has been related so that the reader may awaken from the sleep of heedlessness and ignorance and take the epistle as a reminder and lesson.

May God grant us, you, and all our brothers right guidance.

Indeed, He is compassionate toward His servants.

Here ends, in its entirety, the Epistle on the Causes of the Differences among Languages.

May God bless our master Muhammad and his family and grant them peace.

The Epistle on the Causes of the Differences among Languages is complete in its entirety