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MOTHER INDIA

MONTHLY REVIEW OF CULTURE

Vol. LXV

No. 1

“Great is Truth and it shall prevail”

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Correction

In the November-December issue of the journal there were 2 rather serious lapses:

* On p. 1049: the date on which Sri Aurobindo gave K. D. Sethna his new name “The clear ray” has erroneously been printed as 30 September. It should be 3 September 1930 — as is clearly seen in the facsimile on p. 914.

* On p. 1061: in the reproduction of the designs Amal made for the Mother’s crown, the two halves have been switched. The bigger portion of the designs should be in the centre and the narrower portion at the edges.

HUTA

Born Savita D. Hindocha on 1 September 1931 in Kabiramaido, Uganda, in East Africa, her soul was drawn to the Mother from a young age. She joined the Ashram on 10 February 1955. The Mother gave her the name “Huta” meaning “The Offered One”.

Huta passed away on 17 November 2011 at the Ashram Nursing Home.

THE INFINITESIMAL INFINITE

Out of a still immensity we came.

These million universes were to it
The poor light-bubbles of a trivial game,
A fragile glimmer in the Infinite.

It could not find its soul in all that Vast:

It drew itself into a little speck
Infinitesimal, ignobly cast
Out of earth's mud and slime strangely awake, —

A tiny plasm upon a casual globe

In the small system of a dwarflike sun,
A little life wearing the flesh for robe,
A little mind winged through wide space to run.

It lived, it knew, it saw its self sublime,
Deathless, outmeasuring Space, outlasting Time.

SRI AUROBINDO

(Collected Poems, CWSA, Vol. 2, p. 589)

THE SIDDHIS

SOME men sneer at the Siddhis because they do not believe in them, others because they think it is noble and spiritual to despise them. Both attitudes proceed from ignorance. It is true that to some natures the rule of *omne ignotum pro magnifico* holds and everything that is beyond their knowledge is readily accepted as true marvel and miracle, and of such a temper are the credulous made, it is also true that to others it is *omne ignotum pro falso* and they cannot forbear ridiculing as fraud or pitiable superstition everything that is outside the reach of their philosophy. This is the temper of the incredulous. But the true temper is to be neither credulous nor incredulous, but calmly and patiently to inquire. Let the inquiry be scrupulous, but also scrupulously fair on both sides. Some think it shows superior rationality, even when they inquire, to be severe, and by that they mean to seize every opportunity of disproving the phenomenon offered to their attention. Such an attitude is good rather for limiting knowledge than increasing it. If it saves us from some errors of assertion, it betrays us into many errors of negation and postpones developments of the utmost importance to our human advance.

I do not wish to argue the question of the existence or nonexistence of Yogic siddhis; for it is not with me a question of debate, or of belief and disbelief, since I know by daily experience that they exist. I am concerned rather with their exact nature and utility. And here one is met by the now fashionable habit, among people presuming to be Vedantic and spiritual, of a denunciation and holy horror of the Yogic siddhis. They are, it seems, Tantric, dangerous, immoral, delusive as conjuring tricks, a stumbling block in the path of the soul's liberation. Swami Vivekananda did much to encourage this attitude by his eagerness to avoid all mention of them at the outset of his mission in order not to startle the incredulity of the Europeans. "These things are true" he said, "but let them lie hidden." And now many who have not the motives of Vivekananda, think that they can ape his spiritual greatness by imitating his limitations.

There was no such weakness in the robust temperament of our forefathers. Our great Rishis of old did not cry out upon Siddhis, but recognised them as a part, though not the most important part of Yogic accomplishment, and used them with an abundant and unhesitating vigour. They are recognised in our sacred books, formally included in Yoga by so devotional a Purana as the Bhagawat, noted and some of their processes carefully tabled by Patanjali. Even in the midnight of the Kali great Siddhas and saints have used them more sparingly, but with power and effectiveness. It would be difficult for many of them to do otherwise than use the siddhis since by the very fact of their spiritual elevation, these powers have become not exceptional movements, but the ordinary processes of their thought and action.

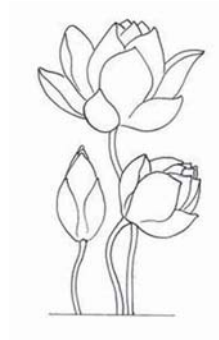
It is by the use of the siddhis that the Siddhas sitting on the mountains help the world out of the heart of their solitude and silence. Jesus Christ made the use of the siddhis a prominent feature of his pure, noble and spiritual life, nor did he hesitate to communicate them to his disciples — the laying of hands, the healing of the sick, the ashirvada, the abhishap, the speaking with many tongues were all given to them. The day of Pentecost is still kept holy by the Christian Church. Joan of Arc used her siddhis to liberate France. Socrates had his siddhis, some of them of a very material nature. Men of great genius are usually born with some of them and use them unconsciously. Even in natures far below the power and clarity of genius we see their occasional or irregular operation. The West, always avid of knowledge, is struggling, sadly hampered by misuse and imposture, to develop them and gropes roughly for the truth about them in the phenomena of hypnotism, clairvoyance, telepathy, vouched for by men and women of great intellectuality and sincerity. Returning Eastwards, where only their right practice has been understood, the lives of our saints northern and southern are full of the record of Siddhis. Sri Ramakrishna, whose authority is quoted against them, not only made inward use of them but manifested them with no inconsiderable frequency in His lila. I see nothing in this long record immoral, dangerous or frivolous. But because Europe looks with scorn and incredulity on these “miracles” and this “magic”, we too must needs be ashamed of them, hustle them into the background and plead that only a few charlatans and followers of false paths profess their use. But as for us, we are men of intellect and spirituality, ascetics, devotees, self-deniers, Vedantins; for these things we are too high and we leave them to Theosophists, immoral Tantrics and deluded pseudo-Yogins.

Let us have done with cant and pretension in all matters. There are no such things as miracles in this world of divine processes, for either there is no such thing as a miracle or, if we consider more closely, everything in this world is a miracle. A miracle is, literally, a marvel, a thing to be wondered at — so long as the process is [not] known. Wireless telegraphy is a great marvel, the speechless passage of a thought from brain to brain is a yet greater, yet it happens daily even in the most commonplace minds and existences. But when the process is known, nothing is left to be wondered at except the admirable greatness of wisdom, width & variety of conception & subtlety & minuteness in execution with which this universe is managed. And even that wonder ceases when we know God and realise that the most wonderful movements of the cosmos are but trifles and “conjuring-tricks” compared with His infinite Reality. And as it is with this siddhi of science which we call wireless telegraphy and with this other siddhi of nature which is exemplified in the momentary or rapid spread of a single thought or emotion in a mob, a nation, an army, so it is with the Yogic siddhis. Explain & master their processes, put them in their proper relation to the rest of the economy of the universe and we shall find that they are neither miraculous nor marvellous nor supernatural. They are supernormal

only in the way in which aviation is supernormal or motoring or the Chinese alphabet. Nor is there anything magical in them except in so far as magic, the science of the Persian Magi, means originally & properly the operations of superior power or superior knowledge. And in that sense the occultism of the present day is magic precisely in the same sense as the scientific experiments of Roger Bacon or Paracelsus. There is a good deal of fraud and error and self-deception mixed up with it, but so there was with the earliest efforts of the European scientists. The defects of Western practitioners or Eastern quacks do not get rid of our true & ancient Yoga.

SRI AUROBINDO

(Essays Divine and Human, CWSA, Vol. 12, pp. 14-17)



‘. . . FAITHFUL INTERMEDIARIES OF THY DIVINE AND ABSOLUTE LAW’

March 15, 1914

MY thought is filled with Thee, my heart is full, all my being is filled with Thy Presence, and peace grows ever deeper, giving rise to that happiness, so special, so unmixed, of a calm serenity, which seems vast as the universe, deep as the unfathomable depths which lead to Thee.

Oh, these silent and pure nights when my heart overflows and unites with Thy divine Love to penetrate all things, embrace all life, illumine and regenerate all thought, purify all feeling, awaken in every being the consciousness of Thy marvellous Presence and of the ineffable peace that flows from it!

Grant, O Lord, that this consciousness and peace may constantly grow within us, so that we may be more and more the faithful intermediaries of Thy divine and absolute law.

THE MOTHER

(Prayers and Meditations, CWM 2nd Ed., Vol. 1, p. 100)

ON MIRACLES

13 – They told me, “These things are hallucinations.” I inquired what was a hallucination and found that it meant a subjective or psychical experience which corresponds to no objective or no physical reality. Then I sat and wondered at the miracles of the human reason.

What does Sri Aurobindo mean by “the miracles of the human reason”?

In this aphorism, by “they” Sri Aurobindo means the materialists, the scientists and, in a general way, all those who only believe in physical reality and consider human reason to be the one infallible judge. Furthermore, the “things” he speaks of here are all the perceptions that belong to worlds other than the material, all that one can see with eyes other than the physical, all the experiences that one can have in subtle domains from the sense perceptions of the vital world to the bliss of the Divine Presence.

It was while discussing these and other similar “things” that Sri Aurobindo was told that they were “hallucinations”. When you look up the word “hallucination” in the dictionary, you find this definition: “Morbid sensation not produced by any real object. Objectless perception.” Sri Aurobindo interprets this or puts it more precisely: “A subjective or psychical experience which corresponds to no objective or no physical reality.” There could be no better definition of these phenomena of the inner consciousness, which are most precious to man and make him something more than a mere thinking animal. Human reason is so limited, so down to earth, so arrogantly ignorant that it wants to discredit by a pejorative word the very faculties which open the gates of a higher and more marvellous life to man. . . . In the face of this obstinate incomprehension Sri Aurobindo wonders *ironically* at “the miracles of the human reason”. For the power to change truth into falsehood to such a degree is certainly a miracle.

5 January 1960

* * *

14 – Hallucination is the term of Science for those irregular glimpses we still have of truths shut out from us by our preoccupation with matter; coincidence for the curious touches of artist in the work of that supreme and universal Intelligence which in its conscious being, as on a canvas, has planned and executed the world.

What does the “artist” represent here?

Here Sri Aurobindo compares the work of the Supreme Lord, creator of the universe, to the work of an artist painting in his conscious being, with sweeping brush-strokes, as on a canvas, the picture of the world. And when by “curious touches” he paints one stroke over another, we have a “coincidence”.

Usually the word “coincidence” suggests unconscious, meaningless chance. Sri Aurobindo wants to make us understand that chance and unconsciousness have nothing to do with this phenomenon; on the contrary, it is the result of a refinement of taste and consciousness of the kind that artists possess, and it can reveal a deep intention.

12 January 1960

* * *

15 – That which men term a hallucination is the reflection in the mind and senses of that which is beyond our ordinary mental and sensory perceptions. Superstition arises from the mind’s wrong understanding of these reflections. There is no other hallucination.

Can hallucinations be compared to visions?

A vision is a perception, by the visual organs, of phenomena that really exist in a world corresponding to the organ which sees.

For example, to the individual vital plane there corresponds a cosmic vital world. When a human being is sufficiently developed he possesses an individualised vital being with organs of sight, hearing, smell, etc. So a person who has a well-developed vital being can see in the vital world with his vital sight, consciously and with the memory of what he has seen. This is what makes a vision.

It is the same for all the subtle worlds — vital, mental, overmental, supramental — and for all the intermediate worlds and planes of the being. In this way one can have visions that are vital, mental, overmental, supramental, etc.

On the other hand, Sri Aurobindo tells us that what is termed a hallucination is the reflection in the mind or the physical senses of that which is beyond our mind and our ordinary senses; it is therefore not a direct vision, but a reflected image which is usually not understood or explained. This character of uncertainty produces an impression of unreality and gives rise to all kinds of superstition. This is also why “serious” people, or people who think themselves serious, do not accord any value to these phenomena and call them hallucinations. And yet, in those who are interested in occult phenomena, this type of perception often precedes the emergence

of the capacity of vision which may be in course of formation. But you must guard against mistaking this for true vision. For, I repeat, these phenomena occur most often in a state of almost complete ignorance and are too frequently accompanied by much error and wrong interpretation; not to mention the cases of unscrupulous people, who introduce into the account they give of their experiences many details and particulars not actually there, thus justifying the discredit with which these phenomena are received by rational and thoughtful people.

So we shall reserve the word “vision” for experiences that occur in awareness and sincerity. Nevertheless, in both cases, in “hallucination” as well as in vision, what is seen does correspond to something quite real, although it is sometimes much deformed in the transcription.

20 January 1960

* * *

16 – Do not like so many modern disputants smother thought under polysyllables or charm inquiry to sleep by the spell of formulas and cant words. Search always; find out the reason for things which seem to the hasty glance to be mere chance or illusion.

How can we find out the reason for things? If we try to do it with the mind, will it not be yet another illusion screening the Truth?

There are many planes or zones of the mind, from the plane of the physical mind, the lower zone of ordinary thoughts, full of error and ignorance and falsehood, to the plane of the higher mind which receives, in the form of intuitions, the rays of the supramental truth. Between these two extremes there is a gradation of countless intermediate planes that are superimposed one upon another and which influence each other. In one of the lower zones lies the practical reason, the common sense of which man is so proud and which, for ordinary minds, appears to be the expression of wisdom, although it still works wholly in the field of ignorance. To this region of practical reason belong the “polysyllables” of which Sri Aurobindo speaks, the commonplaces and clichés, all the ready-made phrases which run about in the mental atmosphere from one brain to another and which people repeat when they want to appear knowledgeable, or when they think themselves wise.

Sri Aurobindo puts us on our guard against this trite and inferior way of thinking when we are faced with a new or unexpected phenomenon and try to explain it. He tells us to search always, untiringly, using our highest intelligence, the intelligence which thirsts to know the true cause of things, and to go on searching without being satisfied by facile and popular explanations, until we have discovered a more subtle

and truer truth. Then at the same time we shall find that behind everything, even what seems to be chance and illusion, there is a conscious will at work to express the Supreme Vision.

27 January 1960

* * *

84 – The supernatural is that the nature of which we have not attained or do not yet know, or the means of which we have not yet conquered. The common taste for miracles is the sign that man's ascent is not yet finished.

85 – It is rationality and prudence to distrust the supernatural; but to believe in it is also a sort of wisdom.

86 – Great saints have performed miracles; greater saints have railed at them; the greatest have both railed at them and performed them.

87 – Open thy eyes and see what the world really is and what God; have done with vain and pleasant imaginations.

Why didn't you or Sri Aurobindo make a greater use of miracles as a means of overcoming resistance in the external human consciousness? Why this kind of self-effacement where outer things are concerned, this non-intervention or discretion?

As for Sri Aurobindo, I only know what he told me several times. People give the name of "miracle" only to interventions in the material or the vital world. And these interventions are always mixed with ignorant and arbitrary movements.

But the number of miracles that Sri Aurobindo performed in the mind is incalculable; but naturally you could only see it if you had a very straight, very sincere, very pure vision — a few people did see it. But he refused — this I know — he refused to perform any vital or material miracles, because of this mixture.

My experience is that in the present state of the world, a direct miracle, material or vital, must necessarily take into account a great many elements of falsehood that are unacceptable — they are necessarily miracles of falsehood. And they are unacceptable. I have seen what people call miracles; I saw many of them at one period, but this gave a right of existence to many things which to me are not acceptable.

What men call "miracles" nowadays are almost always performed by vital beings or by men who are in contact with vital beings, and this is a mixture — it

accepts the reality of certain things, the truth of certain things that are not true. And this is the basis on which it works. So that is unacceptable.

I did not quite understand what you meant by saying that Sri Aurobindo performed miracles in the mind.

I mean that he used to introduce the supramental force into the mental consciousness. Into the mental consciousness, the mental consciousness that governs all material movements, he would introduce a supramental formation or power or force which immediately changed the organisation. This produces immediate effects which seem illogical because they do not follow the normal course of movements according to mental logic.

He himself used to say that when he was in possession of the supramental power, when he could use it at will and focus it on a specific point with a definite purpose, it was irrevocable, inevitable: the effect was absolute. That can be called a miracle.

For example, take someone who was sick or in pain; when Sri Aurobindo was in possession of this supramental power — there was a time when he said that it was completely under his control, that is, he could do what he wanted with it, he could apply it where he liked — then he would apply this Will, for example, to some disorder, either physical or vital or, of course, mental — he would apply this force of greater harmony, of greater order, this supramental force, and focus it there, and it would act immediately. And it was an order: it created an order, a harmony greater than the natural harmony. That is, if it was a case of healing, for example, the healing would be more perfect and more complete than any obtained by ordinary physical and mental methods.

There were a great many of them. But people are so blind, so embedded in their ordinary consciousness that they always give “explanations”, they can always give an explanation. Only those who have faith and aspiration and something very pure in themselves, that is, who truly want to know, they were able to perceive it.

When the Power was there, he even used to say that it was effortless; all he had to do was to apply this supramental power of order and harmony and instantly the desired result was achieved.

What is a miracle? Because Sri Aurobindo often said that there are no miracles and, at the same time he says in Savitri, for example: “All’s miracle here and can by miracle change.”

That depends on how you look at it, from this side or that.

You give the name of miracle only to things which cannot be clearly explained or for which you have no mental explanation. From this point of view you can say

that countless things that happen are miracles, because you cannot explain the how or the why of them.

What would be a true miracle?

I can't see what a true miracle can be because, after all, what is a miracle? A true miracle . . . Only the mind has the notion of miracles; because the mind decides, by its own logic, that given this and that, another thing can or cannot be. But this represents all the limitations of the mind. Because, from the point of view of the Lord, how can there be a miracle? Everything is Himself which He objectifies.

So here we come to the great problem of the way which is being followed, the eternal way, as Sri Aurobindo explains it in *Savitri*. Of course, one can conceive that what was objectified first was something which had an inclination for objectivisation. The first thing to recognise, which seems consistent with the principle of evolution, is that the objectivisation is progressive, it is not total for all eternity. . . . (*Silence*) It is very difficult to tell, because we cannot get out of our habit of conceiving that there is a definite quantity unfolding indefinitely and that there can only be a beginning if there is a definite quantity. We always have, at least in our way of speaking, the idea of a *moment* (*laughing*) when the Lord decides to objectify Himself. Like this, the explanation becomes easy: He objectifies Himself gradually, progressively, and this results in a progressive evolution. But that is only a manner of speaking; because there is no beginning, there is no end, and yet there is a progression. The sense of succession, the sense of evolution, the sense of progress only exists with the manifestation. It is only when one speaks of the earth that one can give an explanation that is both very rational and in accord with the facts, because the earth has a beginning, not in its soul but in its material reality.

It is also likely that a material universe has a beginning.

(*Silence*)

If you look at it this way, for a universe a miracle would be the sudden intrusion of something from another universe. And for the earth, this reduces the problem to something very understandable — a miracle is the sudden intrusion of something which did not belong to the earth: it produces a radical and immediate change by introducing a principle which did not belong to this physical world of earth.

But there again, it is said that at the very centre of each element *everything exists* in principle; so even that miracle is not possible.

One could say that the sense of miracle belongs only to a finite world, a finite consciousness, a finite conception. It is the sudden entry — the intrusion, the intervention, the penetration — without preparation, of something which did not exist in this physical world. So obviously, any manifestation of a will or a consciousness

which belongs to a domain that is more infinite and more eternal than earth, is necessarily a miracle on earth. But if you leave the finite world, the understanding of the world, miracles do not exist. The Lord can play at miracles if it so amuses Him, but there are no miracles — He plays every possible game.

You can begin to understand Him only when you *feel* in this way, that He plays every possible game, and “possible” does not mean possible according to the human conception, but possible according to His own conception!

And there, there is no room for miracles — except that it looks like a miracle.

(*Silence*)

If, instead of a slow evolution, something belonging to the supramental world appeared suddenly, man, the mental being, could call that a miracle, because it would be the intervention of something which he does not consciously carry within himself and which intervenes in his conscious life. And in fact, if you consider this taste for miracles, which is very strong — much stronger in children and in hearts that have remained childlike than in highly mentalised individuals — it is a faith in the realisation of the aspiration for the marvellous, of something higher than anything one can expect from normal life.

Indeed, in education, both tendencies should be encouraged side by side: the tendency to thirst for the marvellous, for what seems unrealisable, for something which fills you with the feeling of divinity; while at the same time encouraging exact, correct, sincere observation in the perception of the world as it is, the suppression of all imagination, a constant control, a highly practical and meticulous sense for exact details. Both should go side by side. Usually, you kill the one with the idea that this is necessary in order to foster the other — this is completely wrong. Both can be simultaneous and there comes a time when one has enough knowledge to know that they are the two aspects of the same thing: insight, a higher discernment. But instead of a narrow, limited insight and discernment, the discernment becomes entirely sincere, correct, exact, but it is vast, it includes a whole domain that does not yet belong to the concrete manifestation.

From the point of view of education, this would be very important: to see the world as it is, exactly, unadorned, in the most down-to-earth and concrete manner; and to see the world as it can be, with the freest, highest vision, the one most full of hope and aspiration and marvellous certitude — as the two poles of discernment.

The most splendid, most marvellous, most powerful, most expressive, most total things we can imagine are nothing compared to what they can be; and at the same time our meticulous exactitude in the tiniest detail is never exact enough. And both must go together. When one knows this (*downward gesture*) and when one knows that (*upward gesture*), one is able to put the two together.

And this is the best possible use of the need for miracles. The need for miracles

is a gesture of ignorance: “Oh, I would like things to be like this!” It is a gesture of ignorance and impotence. And those who say, “You live in a miracle”, know only the lower end — and even then they know it only imperfectly — and they have no contact with anything else.

This need for miracles must be changed into a conscious aspiration for something — which is already there, which exists — which will be manifested *by the help* of all these aspirations; all these aspirations are necessary or, if one looks at it in a truer way, they are an accompaniment — an agreeable accompaniment — in the eternal unfolding.

Of course, people with a very strict logic tell you, “Why pray? Why aspire? Why ask? The Lord does what He wants and He will do what He wants.” It is quite obvious, there is no need to say it, but this impulse: “O Lord, manifest!” gives a more intense vibration to His manifestation.

Otherwise, He would never have made the world as it is. There is a special power, a special delight, a special vibration in the intensity of the world’s aspiration to become once more what it is.

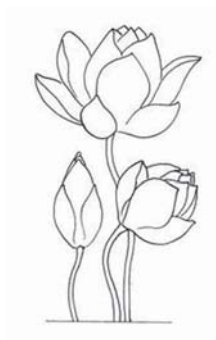
And that is why — partly, fragmentarily — there is an evolution.

An eternally perfect universe, eternally manifesting the eternal perfection, would lack the joy of progress.

6 March 1963

THE MOTHER

(*On Thoughts and Aphorisms*, CWM 2nd Ed., Vol. 10, pp. 39-43, 157-64)



“O SILENT LOVE . . .” CORRESPONDENCE WITH SRI AUROBINDO

Sri Aurobindo —

I was thinking to stop writing poetry for some time in order to let the inspiration come richer through a medium of hushed intensity. But the following lines got written somehow. Are they any good?

Because You never claim of us a tear,
O Love, how often we forget
The eyes of countless centuries were wet
To bring Your joy so near!

Forgive if I remember not the blaze,
Imperishable, infinite,
Of far Omnipotence from which You light
Your lamp of human face!

Make me a worship-vigil everywhere,
Slumber and wakefulness one memory
That You are God: O let each pore of me
Become a mouth of prayer!

Sri Aurobindo's comment:

It is very good. The last poems or some of them showed a fatigued inspiration, but here there is full recovery, freshness and perfection.

6 February 1934

*

Sri Aurobindo —

Just a little after I sent up my poem I found that I had negligently left some obvious flaws in it. So please consider this version instead of the other:

Because you never claim of us a tear,
O silent Love, how often we forget
The eyes of countless centuries were wet
To bring your joy so near!

[Version from The Secret Splendour — Collected Poems of K. D. Sethna [Amal Kiran], 1993, page 459:]

O SILENT LOVE . . .

Because You never claim of us a tear,
O silent Love, how often we forget
The eyes of countless centuries were wet
To bring Your smile so near!

Forgive if I remember not the blaze,
Imperishable, perfect, infinite,
Of far Omnipotence from which You lit
Your lamp of human face!

Make me a worship-vigil everywhere,
Slumber and wakefulness one memory
That You are God: O let each pore of me
Become a mouth of prayer!

AMAL KIRAN
(K. D. SETHNA)

There is one kind of faith demanded as indispensable by the integral Yoga and that may be described as faith in God and the Shakti, faith in the presence and power of the Divine in us and the world, a faith that all in the world is the working of one divine Shakti, that all the steps of the Yoga, its strivings and sufferings and failures as well as its successes and satisfactions and victories are utilities and necessities of her workings and that by a firm and strong dependence on and a total self-surrender to the Divine and to his Shakti in us we can attain to oneness and freedom and victory and perfection.

Sri Aurobindo

(The Synthesis of Yoga, CWSA, Vol. 24, p. 771)

SRI AUROBINDO: LIFE AND TIMES OF THE MAHAYOGI

(Continued from the issue of November-December 2011)

Chapter IX

The Quiet Homecoming

Me from her lotus heaven Saraswati
Has called to regions of eternal snow
And Ganges pacing to the southern sea,
Ganges upon whose shores the flowers of Eden blow.

Sri Aurobindo: 'Envoi'¹

(Written on the eve of his departure for India)

THOUGH transplanted on a foreign soil and living in a milieu so different from his motherland's, Sri Aurobindo had begun to nurture a great attraction for India. He was sad that his country, with a unique tradition of quest and culture, lay prostrate under an imperial yoke. He felt discomfited that even a man like Max Muller, hailed as savant revealing to the West the splendours of ancient India through his translations of some of her scriptures, did not hesitate to denounce parts of them as "not only unmeaning, artificial and silly, but even hideous and repellent".² Sri Aurobindo must have wondered if the Westerners in general would ever really feel the subtle pulse of India's inner life as long as their role as colonial masters obliged them to assign to themselves a status of superiority, even if subconsciously.

Hence he had no regrets bidding adieu to England. It was 1893 — incidentally the year Swami Vivekananda sailed for the West. The passage from his poem quoted above, as he stated later, was the statement of a transition. At the end of the transition's objective aspect, what awaited him was an unexpected subjective boon which we can best appreciate if we remember his experience at Darjeeling at a tender age. He was lying down one day when suddenly a great darkness rushed into him and enveloped him and the whole of the universe — a darkness that stayed with him for the next fourteen years.³ Now, fourteen years later, a vast calm descended upon him the moment he stepped on Indian soil at Apollo Bunder, Mumbai.

Did it signify the beginning of a new phase in his life?

Sri Aurobindo had met the ruler of the princely state of Baroda (now Vadodara),

Maharaja Sir Sayajirao Gaekwar, on the latter's trip to London, courtesy James Cotton, a friend of Dr. K. D. Ghose and the brother of Sir Henry Cotton who was for a while the Lt. Governor of Bengal. The Maharaja was happy to appoint Sri Aurobindo to his State service at a monthly salary of Rupees 200 — an amount suggested by James Cotton. Upon arrival in Mumbai on 6 February 1893 at 10.55 in the morning, Sri Aurobindo seems to have proceeded straight to Baroda by train, reaching that city on 8 February.

Sri Aurobindo knew about his father's death that had occurred on 11 December 1892 (the doctor was only 48 years old) at Khulna exactly a month before Sri Aurobindo "embarked on the ship *S. S. Carthage* at London on January 11 1893" the voyage starting the next day.⁴ The circumstance was tragic. The ship by which Sri Aurobindo was scheduled to sail back home sank off the coast of Lisbon, killing most of its passengers and crew. The news was conveyed to Dr. Ghose by his bankers, Grindlays. He could not survive the shock since his great expectations from this worthy son of his were what sustained him through a plethora of personal problems including his wife's insanity. We have a firsthand account of the doctor's last days narrated by the then Collector of Khulna, Brajendranath Dey:

Dr. Ghose believed up to the very end that his son had been admitted into the Indian Civil Service and was coming out. He, in fact, took a month's leave to go and meet him in Bombay and bring him back in triumph, but he could not get any definite news as to when he was coming out and returned from Bombay in a very depressed frame of mind. At last one afternoon he got a wire from his agents in Bombay to the effect that his son's name did not appear on the list of the passengers by the steamer in which he had been expecting his son to come out to India.

It so happened that that very night he and the Superintendent of Police were coming to dine at my house. The dinner was ready, the Superintendent came, but there was no sign of the doctor, although his bungalow was quite close to my house. After waiting for some time I sent an orderly to remind him of the fact that he had agreed to dine at my house that night. The man came back and informed us that the doctor was very ill and quite unconscious. The other medical men in the station were assiduous in their attentions. I did all I could. But it was all of no avail. The poor man lingered on for a day or two and then passed away. . . I had to take the body to the cremation grounds and to attend the cremation.⁵

In view of the popularity and respect Dr. Ghose commanded, several others along with his medical staff must have been there to attend upon him during his last moments. Sri Aurobindo must have learnt from some of them that he died "uttering his name in lamentation".⁶

It is not known if there was anybody present at Apollo Bunder to receive Sri Aurobindo. It was a pleasant coincidence that someone recognised him at the railway station and offered him hospitality. In the course of his 'Evening Talks' Sri Aurobindo refers to him as his "first friend in Baroda" and says further, "He took me to his house and I stayed there for some time." He was Shri Bapubhai Mazmudar (often spelt and pronounced as Mazumdar), a noted citizen of the city. The following is the statement made by Shri Mazmudar's descendants, Smt. Avantikaben and her husband Shri Hanskumar Mankad, given at this author's request, to Prof. Sharad Joshi of the Sri Aurobindo Nivas, Vadodara.

Avantikaben's great-grandfather Shri Bapubhai Mazmudar studied law in England and became a barrister. He knew Sri Aurobindo from his England days. He went to the Baroda railway station for some work on 8th February and saw Sri Aurobindo alighting from the train. Surprised at his unexpected appearance, Shri Bapubhai asked Sri Aurobindo, "How is it that you are here in Baroda?" Sri Aurobindo informed him about his appointment in Baroda State service. Then Bapubhai asked him where he was going to be put up. Sri Aurobindo did not know where to go and there was no arrangement for his stay. He said so to Shri Bapubhai. Bapubhai invited him to his house and so Sri Aurobindo stayed for some days with Shri Bapubhai Mazmudar at his residence in Baroda till other arrangements were made for his stay.

Later Bapubhai's son wrote to Sri Aurobindo during the thirties of the last century, reminding him of his stay with his father at Baroda. Sri Aurobindo acknowledged remembering very well his stay at Bapubhai's residence in Baroda and that Chandan Gauri, Bapubhai's daughter, had taken very good care of him.

Years later the Maharashtrian Yogi Lele, would take Sri Aurobindo to the top floor of this house of Shri Mazmudar for meditation.

What appearance did Baroda then present to an outsider? But for his inner empathy with the country, Sri Aurobindo was an outsider. Here is a contemporary impression left by Mark Twain who visited the town during a three-month-long tour of India in 1895, when Sri Aurobindo had been there for about two years:

Intensely Indian it was, and crumbly and mouldering, and immemorially old, to all appearance. And the houses — oh, indescribably quaint, and curious they were, with their fronts an elaborate lace-work of intricate and beautiful wood-carvings, and now and then further adorned with rude pictures of elephants and princes and gods done in shouting colours; and all the ground floors along these cramped and narrow lanes occupied as shops — shops unbelievably small . . . and with nine-tenth naked natives squatting at their

work of hammering, pounding, brazing, soldering, sewing, designing, cooking, measuring out grain, grinding it, repairing idols — and then the swarm of ragged and noisy humanity under the horses' feet and everywhere . . . It was all wonderful and delightful . . .

I wonder how old the town is. There are patches of building — massive structures, monuments apparently — that are so battered and worn, and seemingly so tired and so burdened with the weight of age, and so dulled and stupefied with trying to remember things they forgot before history began, that they give one the feeling that they must have been a part of original Creation.⁷

For the major part of his sojourn at Baroda that lasted 13 years 4 months and 11 days, Sri Aurobindo's residence was the bungalow, No. 15 at Dandia Bazar, belonging to Shri Khaserao Jadav, the chief collector of Navsari, though he had resided in about five other houses for shorter periods of time. The Dandia Bazar building, dedicated to his memory, is now known as Sri Aurobindo Nivas.

From Sri Aurobindo's own statements setting right several incorrect reports about his service at Baroda as well as from subsequent enquiries, it is authentically known that he joined the Survey department of the Government to begin with and was then moved to the Revenue department. A summary of his services could run like this: from 1897 he was a part-time lecturer in French at the Baroda College. In 1900 he was made Professor of English. He became Vice Principal in 1904 and Acting Principal in March 1905 — a post he held till February 1906. Beginning with Rs. 200 a month, his monthly remuneration at his last position had gone up to Rs. 710.

But the Maharaja's secretariat and much more than that, the Maharaja himself, utilised his services for various purposes. What work he did directly for the Maharaja was quite irregular and spasmodic, though frequent.

All through, the Maharaja used to call him whenever something had to be written which needed careful wording; he also employed him to prepare some of his public speeches and in other work of a literary or educational character Most of the personal work for the Maharaja was done in an unofficial capacity; he was usually invited to breakfast with the Maharaja at the Palace and stayed on to do this work.⁸

But even then, though bound to this physical routine, Sri Aurobindo's splendid inner being surged up at moments to the surface — a glimpse of which is available to us through one of his experiences and its later poetic expression. It is obvious from Mark Twain's observation that horses were a dominantly visible feature on the roads of Baroda. Motor cars were a far cry. (The first car-ride that fascinated the Indian princes was demonstrated by the British Premier Lord Salisbury and that

would be in 1902.) So the Maharaja and his officers, like other notables in the town, used horse-drawn carriages. The one Sri Aurobindo owned was described by his younger brother Barindra Kumar as “a closed carriage of old ramshackle pattern with a small indolent pony attached to it which was well-known in Baroda for its quaintness”. The incident being referred to took place during Sri Aurobindo’s first year in the town and could have concerned this carriage or an earlier one:

Once, Sri Aurobindo was proceeding by his carriage from the Camp Road towards the city. Just by the side of the public garden (now known as Sayaji Garden, a statue of the Maharaja adorning its entrance) an accident was imminent. At once “the vision of the Godhead surging up from within” averted it.⁹

It is the “deathless memory” of this incident that is obviously behind *The Godhead*, a poem Sri Aurobindo wrote in early 1913:

I sat behind the dance of Danger’s hooves
 In the shouting street that seemed a futurist’s whim,
 And suddenly felt, exceeding Nature’s grooves,
 In me, enveloping me the body of Him.

Above my head a mighty head was seen,
 A face with the calm of immortality
 And an omnipotent gaze that held the scene
 In the vast circle of its sovereignty.

His hair was mingled with the sun and breeze;
 The world was in His heart and He was I:
 I housed in me the Everlasting’s peace,
 The strength of One whose substance cannot die.

The moment passed and all was as before;
 Only that deathless memory I bore.¹⁰

This momentous experience when “The world was in His heart and He was I” was part of “inner experiences coming of themselves” and, what is to be noted, Sri Aurobindo did not look upon this and several other experiences of this nature as “part of a Sadhana”.¹¹ It is obvious that he expected far greater things from Yoga which he started by himself in 1904.

A letter written to his sister, Sarojini Devi during this early phase of his sojourn at Baroda reveals to us the very human and private Sri Aurobindo, his affection for a younger sister whom he had seen as an infant and had only lately come to know personally after a visit to Deoghar early in 1894. We reproduce the letter in full because it is also a wonderful example of his spontaneous wit and humour, his

capacity to smile at his own discomfort and because it bears indulgent hints of the nature of his two elder brothers, Benoy Bhushan and Manmohan, referred to as Beno and Mano who were still in England.

Baroda Camp
25th August, 1894

My dear Soro,

I got your letter the day before yesterday. I have been trying hard to write to you for the last three weeks, but have hitherto failed. Today I am making huge effort and hope to put the letter in the post before nightfall. As I am now invigorated by three days' leave, I almost think I shall succeed.

It will be, I fear, quite impossible to come to you again so early as the Puja, though if I only could, I should start tomorrow. Neither my affairs, nor my finances will admit of it. Indeed it was a great mistake for me to go at all; for it has made Baroda quite intolerable to me. There is an old story about Judas Iscariot, which suits me down to the ground. Judas, after betraying Christ, hanged himself and went to Hell where he was honoured with the hottest oven in the whole establishment. Here he must burn for ever and ever; but in his life he had done one kind act and for this they permitted him by special mercy of God to cool himself for an hour every Christmas on an iceberg in the North Pole. Now this has always seemed to me not mercy, but a peculiar refinement of cruelty. For how could Hell fail to be ten times more Hell to the poor wretch after the delicious coolness of his iceberg? I do not know for what enormous crime I have been condemned to Baroda, but my case is just parallel. Since my pleasant sojourn with you at Baidyanath, Baroda seems a hundred times more Baroda.

I dare say Beno may write to you three or four days before he leaves England. But you must think yourself lucky if he does as much as that. Most likely the first you hear of him will be a telegram from Calcutta. Certainly he has not written to me. I never expected and should be afraid to get a letter. It would be such a shocking surprise that I should certainly be able to do nothing but roll on the floor and gasp for breath for the next two or three hours. No, the favours of the Gods are too awful to be coveted. I dare say he will have energy enough to hand over your letter to Mano as they must be seeing each other almost daily. You must give Mano a little time before he answers you. He too is Beno's brother. Please let me have Beno's address as I don't know where to send a letter I have ready for him. Will you also let me have the name of Bari's English Composition Book and its compiler? I want such a book badly, as this will be useful for me not only in Bengalee but in Gujarati. There are no convenient books like that here.

You say in your letter "all here are quite well"; yet in the very next sentence I read "Bari has an attack of fever". Do you mean then that Bari is nobody? Poor

Bari! That he should be excluded from the list of human beings is only right and proper, but it is a little hard that he should be denied existence altogether. I hope it is only a slight attack. I am quite well. I have brought a fund of health with me from Bengal, which, I hope it will take me some time to exhaust; but I have just passed my twenty-second milestone, August 15 last, since my birthday and am beginning to get dreadfully old.

I infer from your letter that you are making great progress in English. I hope you will learn very quickly; I can then write to you quite what I want to say and just in the way I want to say it. I feel some difficulty in doing that now and I don't know whether you will understand it.

With love,

Your affectionate brother,
Auro

P.S. If you want to understand the new orthography of my name, ask uncle.¹²

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EVENING TALKS

(AS RECORDED BY PAVITRA)

(Continued from the issue of October 2011)

(During his first year in Pondicherry, Pavitra took part in the informal talks that Sri Aurobindo had in the evenings with a small group of disciples. Pavitra kept a record of several talks dealing with science and occultism, two subjects of special interest to him.)

8 May 1926

(Continuation of the same subject)

IN the West the highest minds have turned not towards spiritual truth but towards material science. The scope of science is very narrow; it touches only the most exterior part of the physical plane. And even there, what does science know really? It studies the functioning of laws, builds up theories that are ever renewed and each new theory is held up as the last word of truth! We recently had the atomic theory, now comes the electronic.

There are two statements of modern science that would stir up deeper ranges for an occultist:

First, atoms are whirling systems like the solar system.

Second, the atoms of all the elements are made out of the same constituents. Different arrangement is the only cause of their different properties.

If these statements were considered under their true aspect, they could lead science to new discoveries, of which there is no idea at present and in comparison with which the present knowledge is poor.

According to the experience of the ancient Yogis, sensible matter was made out of five elements, Bhutani: Prithivi, Apas, Agni (Tejas), Vayu and Akasha.

Agni is threefold:

First, ordinary fire, Jada Agni;

Second, electric fire, Vaidyuta Agni;

Third, solar fire, Saura Agni.

Science has only entered upon the first and second of these fires. The fact that the atom is like the solar system could lead it to the knowledge of the third.

Beyond Agni is Vayu, of which science knows nothing. It is the support of all

contact and exchange, the cause of gravitation and of the magnetic and electric fields. Through it, the action of Agni, the formal element, the builder of forms, is made possible.

And beyond Vayu is the ether, Akasha.

But these five elements constitute only the grossest part of the physical plane. Immediately behind it is the physical-vital, the element of life buried in matter. J. C. Bose is contacting this element in his experiments. Beyond that is the mind in matter. This mind has a much different form than the human mind; still, it is a manifestation of the same principle of organisation. And deep below, there are two more hidden layers.

That is the occult knowledge concerning the physical plane only. Science is far behind this knowledge.

The Hindu Yogis who realised these truths did not elaborate them and turn them into scientific knowledge. Other fields of action and knowledge having been opened before them, they neglected what for them was the most exterior aspect of the manifestation.

There is a difference between the scientific mind and the cast of mind of an occultist. There is little doubt that someone who could unite these two groups of faculties would lead science towards great progress.

Pavitra: Did science study the first three Tattwas? What, for instance, is Apas?

It is the element that makes life possible — the desire which is the source of life. Agni is the element which renders form possible and Prithivi is the compacting element which concretises.

Kshitish: Water is recognised by science as indispensable to life. Any strong dehydrating agent is an antiseptic — for example, absolute alcohol.

Pavitra: But water is not Apas! What is the relation between the Tattwas and the three states of matter: solid, liquid and gaseous?

These states of matter are the most exterior manifestations of those elements and they are in correspondence with them.

Kshitish: Why does Vayu, which corresponds to gas, stand higher than Agni?

Vayu has been identified with gas, but that is a mistake. It is Vayu which permits exchanges and mutual actions — gravitation, for instance. It is an element of contact.

Kshitish: Is Vayu what has been called Pancha Vayu?

No, there is nothing in common. Pancha Vayu represents certain movements in the vital body.

Pavitra: Do the five senses also correspond to the five Tattwas?

For some of them, the correspondence is easy to recognise. We find in Sankhya, for instance, that Apas contains Rasa, the sense of taste. Agni, determining the forms, corresponds to sight; Vayu, the contacting element, corresponds to touch. As for smell, which has the emission of particles as a mechanism, the correspondence is less evident. It is perhaps more in the nature of a symbol.

Pavitra: Is hearing, then, of a higher quality than sight?

Hearing and the sounds that we receive are very minor compared to the total possibility of sound. Every manifestation originates by a movement of sound. That is what the Veda meant by creation by sound, by creative sound, Shabda Shrishti.

Kshitish: Is Shabda, then, very different from what we call sound?

The range of our auditory perception is small. There exists in sound something higher, beyond its physical manifestation.

X: Some consider the sounds issued by living organisms different in their properties from the sounds made by dead matter.

Y: Another classification is given in the Tantras. They divide sounds into three classes: Vaikhari, Madhyama and Pashyanti.

Pavitra: Are there five elements or seven?

The ancient seers said that everything went by seven. But in the present state of evolution, there are in play five principles of which perception is possible. But very likely, there are seven Tattwas.

Kshitish: What corresponds to the Tattwas, on the vital plane?

There are evidently correspondences, but we enter into a far different world.

X: Is sensible matter made of Prithivi only, or is it compounded with other Tattwas?

What we perceive contains the five Tattwas; that means that the five Tattwas cooperated in its formation.

Pavitra: Reverting to science, it seems that for the study of the physical plane science has followed a method which has given good fruits. Does this method apply to the study of the higher planes? The method consists of observation and experiment, the deduction of laws, and the building up of theories and hypotheses connecting these laws.

There is a twofold objective of the method: to explain the mechanism of the phenomena and the origin of the laws, and to suggest other laws and other experiments.

Moreover, there are certain principles that have ruled the scientific mind, such as not to accept a hypothesis which is not indispensable.

If these methods and principles are not suitable for the higher planes, what modifications are needed in order to promote the study of occult knowledge? Here also some method is necessary, isn't it?

Without any doubt. Observation and experiment count for much in occultism. But if one tried to deduce general laws from what is perceived with no other help, the worst mistake would be made. Something else is necessary — let us call it intuition; it is a discernment which enables one to assert that this is so or it is not so. And it is an indispensable faculty.

Moreover, the occultist does not make any hypotheses. Experimenting and observation confirm what intuition reveals to him. He is liable to error or to ignorance. If what he has intuited is insufficient, he must search for deeper and more complete intuitions. He can commit mistakes if he builds false mental constructions around his intuitions, and mind easily makes up for the lack of intuition with its own additions. It is a very common source of error, and it has led astray a number of occultists. Anyhow, there are no hypotheses in occultism.

Again, scientific hypotheses have no character of truth. Very often it is possible to give two different theories explaining the very same facts — so they have equal value. In such a case, possibilities are more important than truth.

* * *

12 May 1926

(The book of Dr. Gustave Geley, L'Ectoplasme et la Clairvoyance, had been handed over to Sri Aurobindo for reading.)

I have no time to read such books. I simply had a glance at the photos; it was quite enough for me. They show that these are manifestations of vital entities of the lowest order — what the Church calls devils. One has simply to look at the pictures to know what the matter is: the look of the eyes is quite devilish. Nothing good can come out of this, absolutely nothing. It is just the opposite of spiritual science.

If European scientists enter on this way, the consequences may be disastrous. They are trying to rend the veil put by Nature between the physical and the vital, and if this way is widespread, the result will be mass possession and a grip by these beings that will become stronger and stronger upon humanity. Usually these vital beings can act upon man only through his desires and passions; but if one opens himself to them in this way, as the mediums do, they can directly contact the physical plane and their sway can prove to be very harmful. Europe is still protected by the grossness of its mind.

After all, I do not think such practices can spread very far; occult forces would intervene to stop them. But it is far worse than a purely negative scepticism; here there is a total perversion and a complete opposition to all that is spiritual, and it would stand in the way of the spiritual evolution of humanity. There is here an atmosphere that kills all that is spiritual; it is a very repulsive atmosphere and I would not like to have anything to do with all these people.

Dr. Geley may be unaffected; he is there simply as a spectator. But for the medium, there is a danger of moral degradation and a loss of all moral control. Even on the spectator there can be an effect: a kind of cloud is spread in the lowest part of the vital, and under its cover anything can break in.

It is not possible to climb thus from plane to plane — it is impossible — and when the vital is taken by the wrong end, one is in for trouble. It is more obnoxious and dangerous than mere scepticism. These vital beings have utilised this means to get a new point of contact with the physical. Happily, Europe is not very sensitive, but if they introduced this in India the havoc would be great. The Hindu is generally so exactly balanced between the physical and the higher planes that at the slightest touch the veil is rent.

Pavitra: The mediums do not all have a bad morality.

I am not speaking only from the sexual point of view. Their moral comprehension becomes obliterated and they don't know how to distinguish between good and evil.

Besides spiritual knowledge, there is the true occultism, of which there are two kinds: the lower, what is called magic, and the higher. The higher occultism consists in understanding the nature of the planes and the beings who live in them, their relations with the physical plane and how to control them. To all this, spiritual knowledge adds divine comprehension and divine action — the knowledge of the manifestation of the Spirit and its evolution on earth.

But what is done in Europe is neither spiritual development nor occultism. Nothing can come out of these practices, for they can prove nothing — except the existence of the facts themselves. Science is exactly in the same position as “spiritualism”, which cannot prove that the dead live. These vital beings take upon themselves the shapes of the dead and they derive factual knowledge from the subliminal consciousness of the audience and even from other sources. Nothing is proved or disproved by these purely physical experiments.

Similarly, there was a recent article on J. C. Bose’s work in which they were trying to prove that his experiments had demonstrated the non-existence of the vital force, that the vital reactions of plants were as unconscious and automatic as those of inorganic matter. Here also, nothing can be proved, for or against. The only way out is occultism — that is, to work with one’s own consciousness, to study the reactions and the forces, to learn how to distinguish them, to follow their effects, etc.

Kshitish: Are the clairvoyants and those who foretell the future in such a bad position?

No, unless they use the same wrong means.

The majority of those who foretell the future are open to a certain consciousness of the higher part of the physical and there they can perceive images of the past and future. It is not the real knowledge, which can be attained only by rising very high, and it brings us not images but the truth concerning manifestation. Here the knowledge is fragmentary. These people are sometimes interesting, with a very simple mind and a kind of intuition concerning happenings, a kind of psychical tact.

Of course, this also is different from spirituality. One can be a great sage but not be able to foresee the future, and one can be a good clairvoyant but not very spiritually advanced. And in truth there is only one thing worth seeking — it is the evolving Spirit.

Pavitra: The future of Europe is very dark, then. Placed as she is between the Church which dogmatizes, official science which negates, and psychical research which is the “work of demons”, how can she find the way?

By looking for spiritual truth; if there were sufficient aspiration for it, it would manifest.

X: But there are no persons in Europe who possess a sincere and unmixed aspiration towards spirituality.

How do you know that? There is at present no leader in the field of spirituality, but there are possibilities.

Y: Pavitra is here — this is a case of possibilities! (Laughter)

Z: What are the realisations of Edward Carpenter and A.E.?

Of A.E. I know only the poems, not the man. He has written beautiful things, but that does not prove he has a large realisation. With Carpenter, it is somewhat different; but I think he has more of a mental spirituality than a true spiritual knowledge.

In any case it is also something that is necessary. It is not sufficient to have nice ideas about spiritual realisation. What is needed is an aspiration towards the complete change of life itself. And for Europe the obstacle lies in the mind.

(To be continued)

(Conversations with Sri Aurobindo by Pavitra [Philippe Barbier Saint Hilaire], Sri Aurobindo Ashram Trust, 2007)

Later — much later — one day, looking back, we may see that everything that happened, even what seemed to us the worst, was a Divine Grace to make us advance on the way; and then we become aware that the personal effort too was a grace.

The Mother

(Questions and Answers 1957-58, CWM 2nd Ed., Vol. 9, pp. 351-52)

SCHOPENHAUER AND INDIAN PHILOSOPHIES

Introduction

INTEREST of western scholars in Indian philosophies grew primarily in the twentieth century. During the nineteenth century there were very few western scholars who had any knowledge of Indian philosophies, and one of the reasons was that books on Indian philosophies and/or translations of Indian religious texts in European languages were not easily available. So it is quite remarkable that a philosopher of the stature of Arthur Schopenhauer took keen interest in reading translations of Upanishads, Bhagavad Gita (or simply Gita) and also Samkhya Karika of Ishwara Krishna. He also read several Buddhist texts.

Schopenhauer (1788-1860) belongs to a golden period of German philosophy filled with famous philosophers. Among those who preceded him is Immanuel Kant (1724-1804), whose philosophy he studied thoroughly. Johann G. Fichte (1762-1814) and Friedrich W. J. Schelling (1775-1854) were just a little ahead of him, and Schopenhauer actually attended a few lectures given by Fichte. George W. F. Hegel (1770-1831) may be considered his contemporary. Actually the fame and prominence of Hegel in the world of philosophy at that time overshadowed Schopenhauer and his work until very late in his life. Schopenhauer did not like Hegel's philosophy and he did not hide his bitter feelings about him. Among those who came a little later Karl Marx (1818-1883) and Friedrich Nietzsche (1844-1900) are well known. There is no indication that any of these great philosophers except Schopenhauer and to some extent Nietzsche had any significant exposure to Indian philosophy.

Schopenhauer was the first among the great western philosophers who recognised the value of Indian philosophies and acknowledged it by making numerous references to Indian philosophical concepts in his own writings. It is reported that late in life he read Upanishads every night. In one of his publications in his late years, referring to Upanishads, he wrote:

It is the most profitable and sublime reading that is possible in the world; it has been the consolation of my life and will be that of my death. (Schopenhauer 1851, p. 397)

Schopenhauer's philosophy was known to many Indian scholars and spiritual leaders of the twentieth century. On more than one occasion in his lectures Swami Vivekananda made reference to Schopenhauer and his admiration of Indian philosophies. In a lecture delivered in Colombo, Sri Lanka, Swami Vivekananda referred

to Schopenhauer as the “great German sage” although he did not agree with all aspects of Schopenhauer’s philosophy. (Swami Vivekananda, 1947, p. 109) Sri Aurobindo too regarded Schopenhauer as a ‘great intellect’ and having a ‘mind of the greatest power’ in the field of philosophy, and he appreciated the fact that Schopenhauer recognised the greatness of Indian philosophies. (Sri Aurobindo, 1968, pp. 16 and 48)

One question that has been raised and examined by a few scholars of recent time is whether Indian philosophies influenced Schopenhauer strongly enough so that he actually changed some of his early views in his later writings. This issue dealing with a noticeable change actually occurring in Schopenhauer’s writings is controversial and difficult to resolve although some scholars believe it to be true as expressed by Moira Nicholls (Nicholls 1999) and Douglas L. Berger (Berger 2004). I will not deal with this issue in this article; instead I will address a more straightforward question: what are the similarities and differences between Schopenhauer’s philosophy and Indian philosophies?

This article is organised in two parts. In the first part I will present a brief overview of Schopenhauer’s own philosophy and I will discuss certain key metaphysical concepts and also his views on the meaning of life and the way for salvation. In the second part I will discuss how he became acquainted with Indian philosophies, and I will make a comparison of his philosophy with Indian philosophies. Among Indian philosophies I will focus primarily on Vedanta philosophy, which is based on interpretations of Upanishads, and Samkhya Karika as well as Buddhism since he was familiar with these three schools of thought. I should point out that Hinduism includes both Vedanta and Samkhya Karika.

The reference sources for Schopenhauer’s philosophy will be primarily the two volumes of his most famous work, which are titled: *The World as Will and Presentation*, Volume One written in German in 1819, and *The World as Will and Presentation*, Volume Two written in German in 1844. The English translations of these books, which I will use, are: Volume One by Richard E. Aquila in 2008, and Volume Two by David Carus and Richard E. Aquila in 2010. (I may point out that the translation of Volume One by Aquila is based on the third edition of the book published in 1859. The original Volume One was published in 1819.)

Part I. Schopenhauer’s Philosophy

Metaphysical Aspects

Most of Schopenhauer’s philosophy is coherent and straightforward. However, there are a few aspects of his philosophy dealing with metaphysical concepts that are incoherent and difficult, if not impossible, to explain. Schopenhauer himself

seems to have been aware of the problem and had difficulty in reconciling the inconsistencies. I will point out some of these inconsistencies when we will encounter them in this discussion, but I will not be able to provide an in-depth explanation of these issues. I may add that some of the inconsistencies may have been brought about by his attempt to incorporate ideas from Indian philosophies especially the Upanishads.

The basic structure of Schopenhauer's metaphysical thought is somewhat similar to that of Immanuel Kant's philosophy, which he studied thoroughly and also critiqued. According to Schopenhauer the world has two aspects. First, the world is an appearance or presentation of objects to individual cognizant subjects. The world as appearance is what Immanuel Kant called 'phenomenon'. The second aspect is the inner essence, or thing-in-itself, of phenomenon, and with respect to this aspect of his philosophy he differed from Kant who believed that the true nature of objects and subjects, i.e., things-in-themselves, cannot be known and that they belong to a different realm, which he called noumenon. According to Schopenhauer the true inner essence, i.e., thing-in-itself, of everything in the phenomenal world is a force, which he called Will. He also introduced a will-less Subject and that created some complications in his metaphysical scheme, which we will examine.

Appearance and Thing-in-Itself

When referring to the appearance aspect of the world Schopenhauer uses the German word 'Vorstellung', which has been translated by different translators as 'idea', 'representation', and also 'presentation'. In a recent translation of Schopenhauer's book *Die Welt als Wille und Vorstellung*, Richard Aquila carefully chose to translate the word 'Vorstellung' as 'presentation', and he points out that the word 'Vorstellung' is commonly used to refer to theatrical presentation (Aquila, 2008). So the world's appearance consists of objects that are presented to an individual subject's mental theatre and the subject observes them in the same way as a spectator of a theatrical presentation does. I should point out that Schopenhauer makes a distinction between individual subjects and 'the Subject', and I will discuss in more detail this important distinction later. At present I would like to point out briefly that for Schopenhauer an individual subject is a part of the phenomenon whereas the Subject is outside phenomenon and is universal or cosmic in nature.

Objects include all physical items of the world including a subject's own body. For Schopenhauer objects are real and not imaginary. Objects are known by a subject with the help of sensory perception. It is important to note that Schopenhauer believes in idealism, but his idealism is not of the extreme type that considers objects as purely mental constructions. He tried to draw a balance between materialism and idealism although he believed strongly in many aspects of idealism. He called himself a transcendental idealist similar to Immanuel Kant. [According to transcendental

idealism mental constructions of objects may legitimately be regarded as the ‘appearances’ of things that are not mental constructions and actually exist in space and time.] For Schopenhauer the two sides of appearance — objects and subjects — are interdependent and inseparable although distinct from each other. Objects coexist with the subject, but it is the subject who develops the presentation through his awareness/cognizance and perception. As a heuristic fiction Schopenhauer envisioned that before individual objects and subjects are manifested in the phenomenal world there is a stage when Matter in an undifferentiated state and a universal Subject stand as the two poles of the world as presentation. [He discussed this concept in the first chapter of the second volume of his book *The World as Will and Presentation*.] Further, it is only in some sort of union of this Matter with the Subject that there comes to be constituted, as objects for the subject, a world of objects that can be thought of as made of matter. Now on the side of individual cognizant subjects, Schopenhauer seems to suggest that the single universal Subject is instantiated in all instances of cognition, and that the bodies of individual subjects provide the medium of the Subject’s expression; in other words, it is by union with individual bodies that a single Subject of knowledge appears as multiple subjects of knowledge. An issue with regard to consistency arises when Schopenhauer introduces individual subjects of willing, which are made of Will and thus are material or physical entities. He also explains cognizance, or awareness, and intellect as a function of the brain. I will discuss this issue in more detail later.

Another important aspect of Schopenhauer’s philosophy is that according to him the objects and individual subjects of will are not derived from two different principles; their inner essence is the same principle, which is the second aspect of the phenomenal world mentioned earlier — the thing-in-itself. I should point out that I am referring to individual subjects in this context and not ‘the Subject’. The thing-in-itself, or inner essence, is what he called Will and it is the single principle that constitutes every thing in the world ranging from dense matter like a rock to immaterial things such as desires, emotions and even intelligence. According to Schopenhauer anything material in nature is an objectification of Will, and he went into great detail to explain how Will is objectified at the human and animal levels as an individual’s own body and various parts of the body. It should be mentioned that Schopenhauer gave an account for the increasingly developed forms of existence or objects by explaining the world as gradations of Will’s manifestation. He also believed that objects — material and immaterial — are subject to causal laws — the Principle of Sufficient Reason, which was expounded also by other philosophers such as Gottfried Leibniz (1646-1716). He, however, developed a more detailed explanation of this principle.

Schopenhauer’s Will is ‘blind striving’ and it has no purpose or aim to fulfil; it is basically a force that is felt as an urge and expressed in all activities of nature including actions for survival, procreation and even intellectual thinking. Since in

the ordinary sense the word 'will' implies a strong determination to fulfil a purpose or goal and since Schopenhauer's Will does not have any purpose, a question arises as to why Schopenhauer chose to use the word Will instead of 'force' or 'energy'. According to Schopenhauer he chose the word Will because it is through our own 'will' we can get some idea in the concrete sense of what sort of force he is referring to.

I pointed out earlier that with regard to the thing-in-itself of the phenomenon, Schopenhauer disagreed with Kant. According to Kant the things-in-themselves of objects of the phenomenal world cannot be known; but according to Schopenhauer the thing-in-itself can be known and he declared it to be the single principle of Will. For Schopenhauer the manifestations of Will in the phenomenal world operate in space and time and follow the laws of cause and effect, but Will itself, as the thing-in-itself, is outside space and time.

Subjects of Different Types

The concepts of a subject (or self), and cognizance (or consciousness) associated with it, are a little complicated in Schopenhauer's philosophy since he postulates several different types of subjects or self in different contexts, and this topic deserves careful attention. As Janaway points out,

In his philosophy the self is seen successively as a subject of experience and knowledge, a subject of will and action, a bodily manifestation of will to life, and a pure mirror of timeless reality. Sometimes it is as if a struggle for dominance is being waged between these different conceptions. (Janaway, 2002, p. 50)

There are some incoherencies in Schopenhauer's explanation of how these different types of subjects are related to Will and also with each other. It is not possible to resolve all inconsistencies, and I will present a few possible interpretations, and I acknowledge the possibility of other explanations.

First I will discuss Schopenhauer's willing subject or 'subject of will'. Individual willing subjects are, of course, also cognizant subjects. As individuals their inner essence is, like that of all objects, Will, which is manifesting itself in the phenomenal world. Therefore they are all material entities. According to Schopenhauer this subject is an individual because of the principle of individuation (*principium individuationis*), which recognises the effect of space and time. This subject is an individual also because of its special relation with a single body. An individual self is subject to egoism and associated pain and pleasure. In Schopenhauer's words an individual willing subject "makes himself the centre of the world, has regard for his own existence and well-being before any other". (Schopenhauer 1819, p. 388) This

self is driven by desire, lust, and other tendencies that bring to it nothing but misery. This willing subject plays a key role in Schopenhauer's pessimistic philosophy of life.

I may add that Schopenhauer speaks of the willing subject, and of willing subjects. And of course he believes in a single cosmic Will manifesting itself in all individual willing subjects. But he never speaks of this Will as itself a willing Subject, i.e., a cosmic willing subject. In any case, Schopenhauer's concept of individual willing subjects is straightforward and free from controversies. However, it is interesting to note that although this individual self of will is what most persons identify with and it seems to be very real to an ordinary individual, in reality this egoist self is somewhat fictitious, and Schopenhauer explains this as follows:

This *cognizant* and conscious I is related to the will that is the basis of its phenomenon as the image in the focus of the concave mirror to the latter itself and, like that image, has only a conditioned, indeed strictly speaking a merely seeming reality. (Schopenhauer 1844, p. 317)

I may point out that the concept of an individual willing subject is similar to that of an 'ego self' (Ahamkara) of Hinduism.

Now let us examine the Subject of knowledge. In relation to objects appearing in one's mind the self may be called the subject of knowledge or a cognizant subject. However, Schopenhauer distinguishes between individual cognizant subjects and a non-individual cognizant Subject, which might be regarded as a cosmic or universal subject. I will use capital 'S' for the cosmic Subject, and I should point out that Schopenhauer himself did not use the terms cosmic or universal, but his description of the Subject is compatible with the concept of a cosmic subject. In the beginning portions of Volume One of his book *The World as Will and Presentation* Schopenhauer describes the Subject as "that which is cognizant of all things and of which none is cognizant". (Schopenhauer 1819, p. 33) He also says a little later that the Subject "does not lie within space and time; for it is whole and undivided in every being that is engaged in presentation". (Schopenhauer 1819, p. 34) According to Schopenhauer the objects of the world are in space and time and are affected by the laws of cause and effect, but the Subject of knowledge is not any sort of object to be found in the world. The Subject is nonetheless in some way "present" undivided in every perceiving being, and thus it is, in some sense, a universal or cosmic Subject. One of his favourite statements with reference to the Subject of knowledge, which he repeats on several occasions, is that it is "the world's *one eye* that looks out from all cognizant beings". (Schopenhauer 1819, p. 242) Schopenhauer calls this Subject the pure Subject of cognition free of any motivation derived from Will.

Schopenhauer's distinction between the two types of subjects, one being the individual self of willing and cognizance, and the other the pure Subject of cognition

or the eternal world eye, is amplified in the following statement of his, which he included in Volume Two:

... we can attribute a twofold existence to every person. As will, and therefore as individual, he is only one and this one exclusively, which leaves him fully occupied with doing and suffering. As that which is engaged in purely objective presentation, he is the pure subject of cognizance, in whose consciousness alone the objective world has its existence. As such he is *all things*, insofar as he perceives them, and in him their existence is apart from burden and hardship. It is, namely, *his* existence, insofar as it exists in *his* presentation; but it is there apart from will. By contrast, insofar as it is will, it is not in him. All is well with one in the state in which he is all things; all is woe where he is exclusively a single one. (Schopenhauer 1844, p. 421)

The nature of cognizance of the Subject, the eternal world eye, is will-less and like a pure mirror, or witness, that reflects the objective essence of things. What is reflected is not coloured or tainted by personal motives, bias or emotions. However, what about the nature of cognizance of an individual willing self? With regard to this issue Schopenhauer seems to suggest that an individual has two categories of cognizance. In most cases an individual is engrossed in egoistic natural cognizance, which is coloured by motivations arising from will, and this is the ordinary cognizance commonly found in a willing subject or self. However, this cognizance is *capable of becoming* purified of motivation arising from will since an individual is the bearer of the pure will-less cognizance of the cosmic Subject, which manifests undivided in all individuals. Schopenhauer also seems to suggest that it is only in certain exceptional states associated with aesthetic contemplation and the complete denial of one's will that will-less cognizance manifests in an individual.

There is one issue with the above described interpretation of the nature of two types of subjects, which should be noted. This interpretation introduces two different principles operating in the world — one is Will and the other is the Subject, and this makes Schopenhauer a dualist. An alternative interpretation is to treat the Subject as the same thing as Will. According to this other view it is Will that becomes conscious at certain levels of its manifestation beginning with animal life and in the most elevated form in human life and consciousness. Indeed there are some statements of Schopenhauer that actually support this view. This view makes Schopenhauer a materialist, which may not be a problem since he himself acknowledged the strong materialistic orientation of his philosophy. However, there is a problem with this purely materialistic view since it would make it impossible for the purification of consciousness and the denial of Will to occur. The denial of Will is a major part of Schopenhauer's philosophy, which I will discuss in a following section.

Critique of Schopenhauer's Metaphysical Structure

For the most part Schopenhauer's philosophy has a coherent theme, which is that everything in the world is material, and further that the essence of everything is Will, which is blind striving. According to him even dense matter is an objectification of Will. Further, this force is 'One' although it appears as many objects. This materialistic theme is fairly straightforward although some may disagree with its basic tenet. However, this metaphysical scheme runs into problems when he introduces the concept of the Subject of knowledge. If he clearly took the position that the Subject is made of Will and that Will itself generates consciousness using the brains of animals and humans, he would have been consistent. Indeed he seems to be suggesting this materialistic explanation of the Subject and its cognizance in several places especially in the second volume of *The World as Will and Presentation*. However, he also presented with equal emphasis the concept of a cosmic Subject that is not made of Will, and it is this concept that makes it possible for the *purification* of consciousness and the attainment of a will-less state, which are essential to salvation from the suffering of the phenomenal world and egoistic individual existence within it. Obviously this other view of the Subject as a metaphysical principle independent of Will is not consistent with the purely materialistic view of both objects and subjects. Corresponding to these two metaphysical concepts Schopenhauer portrayed two different pictures of human beings. On one hand he portrayed an individual person as being driven by egoism and sexuality and constantly striving to fulfil selfish desires and eventually suffering; on the other hand, he presented the case of a saintly person who has no ego-sense, is full of compassion for all beings and free of suffering. In the first case the individual is a product of Will, and in the other case the person has escaped the grip of Will and is identified with the pure cognition of the cosmic Subject. This portrayal calls for two different principles operating in a human being — Will and will-less pure cognition — and this view is contrary to the claim that the essence of everything is Will. Schopenhauer himself was aware of this inconsistency, and in order to explain that these two subjects are, at least on the individual level, the same, he made the statement that the identity of the self of willing and the Subject of knowledge is "a miracle par excellence". This issue regarding the relation of Schopenhauer's subject of knowledge with Will is fairly complicated. Richard Aquila examined this issue in more detail in the 'Translator's Introduction' of his translation of Schopenhauer's book, *The World as Will and Presentation*, Volume One. (Aquila 2008)

There is another issue which I would like to discuss briefly; it is related to the nature of the Subject and its relation with Will. I have already discussed that one possible interpretation of the nature of the Subject is that it is a manifestation of Will itself on the level of complete self-denial. According to this view an individual person can

transit from the normal state of willing to a will-less state of pure cognition. The will-less state in this case will be free of motivation and desire, but it still is founded on Will. This presents a puzzle: how can will remove itself and become will-less. Schopenhauer was aware of this issue and his answer was that 'will' turns against itself when a person truly understands the real cause for suffering, which is individual will. The other alternative view that the Subject represents a different metaphysical principle also raises a few questions. These questions are: does the Subject represent acts of cognizance without any self or agent associated with it, or does it have a being or self associated with it? In the first case the Subject is not any sort of substance or "thing", spiritual or otherwise. The act of cognizance as the "one eye looking through many eyes" is present wherever an act of cognizance occurs, and it is expressed through a material medium, which is the brain of an animal or a human being. This interpretation, however, is contrary to the concept of Self (Atman) of Upanishads and that of a Conscious Being (Purusha) of Bhagavad Gita, which supposedly influenced Schopenhauer's thinking. The Hindu view of the Self or Subject is that of a spiritual entity, whose substance is consciousness. [I will discuss this further when I compare Schopenhauer's philosophy with Indian philosophies.] It is quite possible that Schopenhauer was torn between these alternative concepts about the Subject. Unfortunately, he wrote in a way that makes it impossible to conclude that one or the other was his view.

Meaning of Life and Denial of Will

Schopenhauer is considered by many as one of the most pessimistic philosophers of the world. (Tanner, 1999) According to Schopenhauer life does not have any meaning and there is no purpose that Will is trying to fulfil. However, it should not be overlooked that there is a positive side of his philosophy since he recognised that it is possible to deny Will and stop the suffering. Schopenhauer mentioned at least once that Will is "striving for the highest possible objectification". (Schopenhauer 1819, p. 188) At that level it can generate a distinct knowledge of itself with the consequence of Will turning against itself.

Schopenhauer identified the cause of the suffering to be *individual* will. The universal Will, which is One, becomes many through the principle of individuation (the *principium individuationis*), and this process creates in each individual person the sense of ego and an individual will. In this context Schopenhauer refers to a concept of Hindu philosophy, which is known as Maya, and he equates the principle of individuation with the 'veil of Maya'. [I will examine the concept of Maya in detail in a subsequent section.] Individual will begets selfishness as each individual person competes with others to preserve and promote himself. In Schopenhauer's words,

every individual, utterly vanishing and diminished to nothing in the boundless world, nonetheless makes himself the centre of the world, has regard for his own existence and well-being before any other, indeed, in the natural standpoint, is ready to sacrifice all else to it, is ready to annihilate the world, just to maintain its own self, this drop in the sea, somewhat longer. (Schopenhauer 1819, p. 388)

Further, individual will is insatiable and it cannot bring happiness. Even when a desire is satisfied, the happiness is only temporary as success breeds another desire, which wants satisfaction. Since one cannot have all desires satisfied, even the fulfilment of some desires ultimately ends in disappointment and unhappiness. It should be pointed out that according to some commentators Schopenhauer's Will is intrinsically evil. (Tanner, 1999) However, such an interpretation is not correct. Schopenhauer's Will is a blind striving force, and by itself it is neither good nor evil. What actually causes suffering is the demand of Will insofar as it is manifested in individual desire and action.

Although Schopenhauer's view of human existence undoubtedly is very pessimistic, gloomy and without any meaningful purpose, he did see and propose a way for salvation, i.e., a way to get out of the suffering. Since the root cause of suffering is individual will, he thought that it is only by the denial or nullification of will and by suppressing selfish desires that one can find happiness and peace. The denial of will in this case should not be interpreted as the elimination of will because that is not possible since everything is constituted by Will, which is the thing-in-itself. What Schopenhauer means by the denial of will is the denial of egoistic feelings which makes one person compete against another. The denial of will by an individual is possible when he is no longer deceived by the 'veil of Maya' and can see what really is going on; however, it is not easy for anyone to deny will. In this context Schopenhauer gave special recognition to artists and ascetic saints. He believed that it is possible for artists and ascetics to attain a level of consciousness where the sense of being a separate individual is transcended, and thereby one can identify with the world as a whole. This concept of the denial of 'will for life' brings out the mystic in Schopenhauer as he writes about overcoming one's separative ego sense and seeing the unity behind diversity. Two examples of his thoughts on this approach to life are given below:

. . . when the veil of Maya, the *principium individuationis*, is so greatly lifted from the eyes of a person that he no longer makes the egoistic distinction between his own person and others, but participates as much in the suffering of other individuals as in his own . . . (Schopenhauer 1819, p. 439)

. . . the cognizance of the whole just described, of the essence of things in themselves, becomes the *quieter* of all and every willing. The will now turns away from life; it now shudders before its enjoyments, in which it is cognizant of its affirmation. Man attains to the state of voluntary renunciation, resignation, true composure and complete will-lessness. (Schopenhauer 1819, pp. 439-440)

A question that arises in this context is: what can be the leverage that one can use to deny will? There is no place for higher Will in Schopenhauer's philosophy since he is an atheist. What he seems to suggest is that the realisation of the fictitious nature of individual ego together with the knowledge of the unity and interconnectedness of all individuals is the liberating force. Further, this liberation from the demands of Will is possible because of his metaphysical view of the universal Subject, which is not constituted by Will. His thoughts on a universal subject, a world-eye looking out from all cognizant beings, are reminiscent of Hindu philosophy, which we will examine soon. The following passage from his writing reflects the view which I just presented:

Just as we earlier saw hate and malice conditioned by egoism and the latter resting on cognizance caught up in the *principium individuationis*, so we found the origin and essence of righteousness — and then, as it goes further, love and generosity up to their highest degrees — to be penetration of that *principium individuationis*, which alone, insofar as it nullifies the distinction between one's own and other individuals, can render possible and explain that complete goodness of disposition which extends to the point of the most unselfinterested love and most generous self-sacrifice. (Schopenhauer 1819, pp. 438-439)

In several other passages Schopenhauer referred to the unselfinterested love, which is mentioned in the above quoted passage, as compassion and pure love, which arise when one is cognizant of the suffering of others. (Schopenhauer 1819, pp. 435-436) This is similar to Buddhist philosophy. Schopenhauer also extolled the virtues of asceticism and the cultivation of equality, or equanimity, in a person's nature. His description of the attitude and outlook of a person who has been successful in denying the demands of individual will is very similar to some of the descriptions of 'a person of steady wisdom' given in Bhagavad Gita in Chapter 2, and it also resembles a person who attains Nirvana of Buddhism while still living in the world. I will write more about these similarities in a later section where I will compare Schopenhauer's philosophy with Hindu and Buddhist philosophies.

(To be continued)

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THE SPIRITUAL HERITAGE OF INDIA

[The last three sentences of this article (here italicised) were written by Sri Aurobindo. He asked Anilbaran to add them at the end of his article.

It may be noted that these three sentences were chosen by the Mother as the message for 15 August 1966.

The article forms the second chapter of the book, Mother India. The first chapter was reprinted in the September 2010 issue of our journal.]

MATERIALISM has been weighed and found wanting and people all over the world are again turning towards the spiritual possibilities of human life. Herein lies the great significance of the rise of India in modern times because it is India and India alone which can truly satisfy the spiritual needs of the human race. And it is no mere egotism on the part of an Indian to say so. No one has ever denied the great and unique spiritual capacity of India; only with the rise of modern science spirituality came into disrepute and a materialistic Europe looked down upon spirituality as a mere superstition, as a source of weakness and they even held up the present fallen condition of India as a positive proof and illustration of their view. No wonder that finding scientific materialism tending towards even greater disasters to humanity, people should look round to India and to the spiritual heritage of this great ancient land.

When Laplace, the great astronomer and mathematician, was explaining to Napoleon the relative positions and movements of the sun, the planets, the stars and the place of the earth in the Solar system, Napoleon put to him the question, "Where is the place of God in your system?" Laplace bluntly answered: "There is no place for God in the Universe!" There he summed up the materialistic mentality of modern Europe, and that matter of the modern world which is now being dominated by Europe and European culture. Whereas in Indian culture the whole life is a religion and it is so arranged that every step a man may take in life will remind him of his spiritual goal, the Europeans have altogether banished God from their life; the worship of God has been relegated to one day in the week, and to one class of people, sneeringly called the 'religious' people! Religion is tolerated not on account of a feeling of its necessity or use in life, but as a fashion, as a sort of luxury or a hobby or as a relic of the past which cannot be easily discarded from the economy of social life — though the Bolsheviks are earnestly trying to do this in Russia. People do not really believe in the existence of a higher power, a higher providence which is guiding the destiny of the world and of the human race. They explain everything by the so-called laws of nature and depend on reason as their highest god, though in reality they do not follow even their reason, but are actually led in life by their vital

impulses and sensuous cravings over which they place a gloss of reason or rationalism. People do whatever their unregenerate nature goads them on to do, they only bring in reason to justify what they are compelled to do by the working of the dark forces of nature within them.

And what has been the result?

The disastrous result is now too apparent to require any detailed description. The most prominent fruit of the scientific materialistic civilisation was the great war¹ which threatened the existence of civilisation itself and that war has not yet ended, but only remains suspended — so that the powers may prepare for even a greater fight with much more disastrous consequences. In all spheres of life, social, political, economical the current ideas and ideals have been questioned in their root principles; everywhere there is conflict and self-contradiction. Civilisation and refinement has become almost synonymous with laxity in moral scruples. In order to make married life a success all the progressive countries have been compelled to make the marriage tie more and more loose and to increase more and more the facilities for divorce. In order to prevent war all the countries are feverishly competing with each other to increase their preparations for war. In order to prevent anarchy and lawlessness, the powers-that-be are themselves taking recourse to the worst forms of lawlessness and terrorism. Democracy which was for a long time regarded as the ideal political institution stands now self-condemned. England, the home of liberty, the Mother of Parliaments, is being forced by circumstances to support all over Europe dictators like Mussolini whose proud boast is that he will “tame Parliamentarianism”. The Communists in Russia starting with the idea of abolishing capitalism and property have been compelled for the sake of their very existence to accept a new economic policy which brings back some of the worst features of a capitalistic organisation. And above all there stands the spectre of a great war in the near future, which everybody now believes to be inevitable, which will be so destructive as to completely upset the old order, perhaps making room for a new one. Truly we stand on the verge of a great crisis, a real ‘Yugantar’. It is no wonder that people have become sceptical about this godless materialistic civilisation and are turning elsewhere to find whether there is any real escape from these riddles of life, from this blind, heartless, cruel, inexorable march of human destiny.

And so people are eagerly turning towards this great ancient land to meet some ray of hope, to find out some new path, some new meaning and significance of human attempts, some effective solution of the ills of human life. So the great and honoured names in India, a Gandhi, a Rabindranath, a Chittaranjan, so easily catch the imagination of the Western people. In these illustrious sons of India they think they will find her true spiritual message. Thus in a meeting held in America to

1. The reference is to World War I. This article was written in 1935.

honour the memory of the late Deshbandhu Chittaranjan Das, Herbert Adams Gibbons said in his concluding remarks:

And let that be our imperishable memory of him, and may we hope that the message of his life re-echoing through all the nations of Asia, may help them to break the bonds that bind them and may lead to a better world in which we of the Occident have found our true self and have returned to the teaching from which we have strayed so far and which we have never followed, of the one who has been our guide, our saviour, Jesus Christ, who taught us of the way, things that we have never learned, never followed, and there is the reason why men from the East like C. R. Das should have the right to rebuke us and lead us back to the path from which we have strayed or perhaps put us back on the path which we have never followed.

That is a typical pronouncement expressing the growing attitude of the Western people towards the East and especially towards India and they expect men from India to lead them back to the path from which they have strayed or perhaps which they have never followed. But as is quite natural, very few people in the West as yet truly understand what the spiritual message of India is — wherever they find anything great or unique or new in the achievement of an Indian, they think that they have found it, that they have at last met with an embodiment, a living illustration of the spiritual heritage of India. They judge according to their own standards; according to them a Napoleon, a Mussolini is a superman; a Tolstoy, a Romain Rolland is a great seer and a prophet. Any greatness of the mind, or of the heart, or of the will is regarded by them as an instance of spirituality. But this is not spirituality as we understand it in India. Greatness in genius, greatness in character, greatness in mind, heart or will does not in itself constitute spirituality proper, because the spirit is something above and beyond the mind and the heart and the will, those are rather the instruments, the vehicles through which the spirit manifests itself; as long as we cannot rise above those to the truth of the spirit itself, we cannot be said to have a really spiritual life. Even a man who is highly moral and religious may only be a 'Sattwic' man, but not a spiritual man, though the 'Sattwic' state is the nearest approach to the spiritual state. Thus in the Mahabharata Arjuna was a great man in every sense of the term, great in his genius and character, great in his knowledge, in his moral ideals, in his strength of will and power of work. he was a representative man of his age, representing in him the highest social, moral and religious ideals of his time; he was a 'Vibhuti', a special manifestation of the Divine among the 'Pandavas'; yet he collapsed utterly at the most critical moment of his life, his mind got confused, his heroism departed from him, and in the poorness of his heart he wanted to give up the work to which he had been appointed by God. Sri Krishna taking advantage of this crisis in his inner life showed him the true way to a spiritual

life, where only he could find the ultimate solution of all his doubts and live truly in God, in divine light and power and joy; his former moral, religious, heroic life was only a preparation for the divine life, the spiritual life to which he was destined.

The Western people in their eagerness and curiosity to know what true spirituality is turn towards all sorts of absurd things. Thus the so-called communication with the dead has come to be specially described as 'spiritualism'. Mesmerism, hypnotism, table-rapping, fortune-telling, all go by the name of spirituality. Any Indian with a little knowledge of the elementary practices of Hatha Yoga or Raja Yoga can at once command great attention and respect in America. But from all these the Western people are forming indeed a very poor, even a grotesque, idea about Indian spirituality and spiritualism.

Even in India very few people understand or realise what true spirituality is. When we say that India is the home of spirituality we do not mean that the Indian people in general have a spiritual life or really understand the implications of spirituality; what is meant by such assertions is that on account of a long ancient civilisation based on spiritual principles and guided by spiritual motives the people have got such a mentality as can be easily bent towards spirituality. Nowhere is it so easy to attain a spiritual life as it is in the atmosphere of India. But as we said above, the true implications of spirituality and a spiritual life are understood by very few people even in India. Thus presiding over a meeting in Bombay held to celebrate the 58th birthday of Mahatma Gandhi, Mr. M. R. Jayakar is reported to have said: — "India's culture lies in suffering, self-sacrifice, and renunciation." Mr. Jayakar typically represents the modern, refined and enlightened Indian, but his statement about the spiritual culture of India, we humbly submit, is a half-truth, a very partial and incomplete statement. Suffering is certainly not a mark of spirituality — it is rather a mark of imperfection and ignorance and the motive underlying all Indian Philosophy and spiritual Sadhana is the complete and integral annihilation of suffering. Suffering as a part and a means of Sadhana is characteristic rather of Christianity, which says: "Blessed are they that mourn." Ascetics who inflict sufferings on themselves have been severely condemned by the Gita as being 'Asuras'. On the other hand, we learn from a study of the Ramayana and the Mahabharata and other great productions of Indian art and literature that the aesthetic satisfactions of all kinds and all grades were an important part of Indian culture and they were made instruments of spiritual culture. The aesthetic and hedonistic being was made not only an aid to religion and spirituality and liberally used for that purpose, but even one of the main gates of man's approach to the spirit. The Vaishnava religion especially is a religion of love and beauty and of the satisfaction of the whole delight-soul of man in God and even the desires and images of the sensuous life were turned by its vision into figures of a divine soul-experience. Few religions have gone so far.

Self-sacrifice and renunciation is certainly an important part of spiritual discipline — but it is only a means for a greater self-fulfilment and a higher

enjoyment. The word renunciation does not adequately describe the ideal of Indian spirituality, — the ideal has been well expressed thus by the Isha Upanishad — “By that renounced thou shouldst enjoy”. At the period of India’s decline, Shankara appeared with his ‘Mayavada’ and made the idea of mere renunciation and ‘Sannyasa’ very popular, and ever since it has been greatly abused and has helped the further decline of India by turning away the attention of the people from worldly life. Wherever people see outward renunciation, a loin-cloth or a sackcloth — they at once infer that they have met with great spirituality. But mere outward renunciation or sacrifice does not constitute spirituality, rather it leads to trouble and disaster. As has been said in the Gita:

But renunciation is difficult to attain without Yoga; the Sage who has Yoga attains soon to the Brahman.

That is the secret of India’s spirituality, — Yoga, a direct conscious union with the Divine Being. We do not mean to say that a man who has renounced the pleasures of the world and has imposed a hard control or discipline on himself is not a great man; what we mean is that all this can be done to a certain limit by the exercise of the intelligence and the will — this forms a particular preparation for spiritual life, but does not in itself constitute spiritual life. Such a man is really a ‘Sattwic’ man who has brought his ‘Tamas’ and his ‘Rajas’ under the control of the ‘Sattwic’ principle in him. But real spiritual life is attained when all these ‘gunas’ are transcended and life is brought directly under the control of the spirit. Thus in the Gita, Arjuna was asked to go beyond the three ‘gunas’ — ‘Nistraigunyo bhavarjuna’. And as a means of this transcendence, Sri Krishna prescribed ‘Yoga’. As long as a man lives in the mind and the heart, he may attain great powers, but cannot go beyond the conflicts and limitations which are inherent in this lower life. One must go beyond them and live in the spirit in order to attain perfection, to attain divine knowledge, divine power and divine joy. And this cannot be achieved merely by ‘tapasya’ or asceticism or by works or by mental knowledge however great. Thus Sri Krishna advises Arjuna:

The Yogin is greater than the doers of austerities, greater than the men of knowledge, greater than the men of works; become then the Yogin, Arjuna.

We find in the Vedic times how the Rishis sought to enrich life in every way through sacrifices to the gods. We have not to neglect the mind or the body — they are instruments through which the spirit is manifesting its glory on the earth. They become false and lead to misery only when we live a life cut off from the higher self, the higher truth of our being. Unless we are awakened to the light of the spirit in us, our self-conquest and freedom can never be complete and we cannot attain to

perfection in knowledge, power and joy to which we are destined. Establishing our union with the spirit we should develop our potentialities to their utmost and live divinely to the utmost — this is illustrated by the final advice of Sri Krishna to Arjuna in the Gita:

Therefore arise, win fame and glory, slay thy enemies, enjoy a prosperous kingdom.

As long as the Indians followed this ideal of true spirituality, India made wonderful progress in all the branches of life, social, political, economic, aesthetic, religious, spiritual. It is not true to say that the Indians were indifferent to the life of this world and always turned to the next world beyond death. Of course, there were people who held such an extreme view and it became more popular during the period of India's decline. But such an outlook has never been the general characteristic of Indian culture. 'Moksha' or spiritual salvation was certainly regarded as the ultimate end of human life, but 'Moksha' really meant freedom from ignorance and misery leading to the taste of 'Amrita', to the joy of the divine life even in this body and on this earth and the path lay through this world, through the gradual realisation of all the possibilities of human life. Thus the ideals of Indian civilisation were expressed in the fourfold objects of life — 'Dharma', 'Artha', 'Kama', 'Moksha'. With the Indians 'Moksha', that is, rising to the higher divine life from the lower life of the three 'gunas', was the true aim of human existence and herein lies the fundamental difference between the Indian and Western civilisations. The right practice of life which would lead to 'Moksha' was 'dharma' and under this practice of life came 'artha' and 'kama', the economic and the aesthetic culture. And these were not mere theories of philosophy; in India philosophy was nothing if it was not lived; the Indians sought to realise these ideals in their life and the result was the unique greatness of India in art and literature, in trade and commerce, in social, political and economical organisation of life. Of course, there were many defects in the application of these principles, defects which were mostly inherent in the then condition of the human race and human possibility and also in the peculiar conditions of India. But the ideal of human life as conceived and actually sought to be followed by the ancient Indians still remains the highest and we have no doubt that the world is gradually coming round to that.

We have said above that in the practical applications of the highest principles there were many defects and shortcomings, which eventually led to the political downfall of India, though after a considerable period of glorious achievements in all the departments of life. But this has given India an opportunity to go even deeper into the realms of spirituality. And even in the matter of external life, India has learnt from her past mistakes and also from the experiments that have been carried on by mankind in other parts of the earth. All currents have entered into India, the

greatest religions and the greatest cultures of the world have met here and we are on the eve of a great cultural and spiritual synthesis on the soil of Mother India, which will advance humanity another step in its order of evolution. There is absolutely no doubt that humanity cannot make any further progress unless it can be made to stand on the spiritual truth of human life, on a new consciousness only to be developed by Yoga.

Society then must be organised on a spiritual basis and India, on account of her great spiritual heritage, is the best place for making a beginning.

... man can never get out of the futile circle the race is always treading until he has raised himself on to the new foundation.

(SABCL, Vol. 26. p. 437)

And we believe that it is the mission of India to make this great victory for the world. The great systems of Indian Yoga and spiritual culture have to be resorted to and also the achievements of Western science have to be taken into the service of this great work of spiritual construction. *Not the blind round of the material existence alone and not a retreat from the difficulty of life in the world into the silence of the Ineffable, but the bringing down of the peace and light and power of a great divine Truth and consciousness to transform Life is the endeavour to-day of the greatest spiritual seekers in India. Here in the heart of such an endeavour pursued through many years with a single-hearted purpose, living constantly in that all-founding peace and feeling the near and greatening descent of that light and power, the way becomes increasingly clear. One sees the soul of India ready to enter into the fullness of her heritage and the hour of an unparalleled greatness approaching when from her soil shall go forth the call and the leading to the highest destinies of the race.*

ANILBARAN RAY

(Reproduced from the book *Mother India* by Anilbaran Ray, published by Gita Prachar Karyalaya, Kalighat, Calcutta. First Edition July 1935; Second Edition August 1946)

The Soul of India is one and indivisible. India is conscious of her mission in the world. She is waiting for the exterior means of manifestation.

6 June 1947

The Mother

(*Words of the Mother – I*, CWM 2nd Ed., Vol. 13, p. 351)

SCIENCE, MIND AND YOGA

A Talk

It is a fairly common perception that science and yoga, in the fullest sense of this term, are incompatible to some degree or other. Indeed it has been rather fashionable for scientists to question concepts that cannot be simply understood on the basis of reason and experiment, and the usefulness of science has equally been called into question by many who actively pursue their own spiritual development. Having spent my formative years in the Sri Aurobindo Ashram and then having gone outside to study further and having had a career as a University Professor of Physics and a research physicist, I have often been asked how I reconciled being a scientist with my personal yoga. I plan today to discuss the relationship between science and spiritual development in three parts. In the first part, I will show that the intuitive logical faculty of men, that underpins mathematics and science and is objective, actually is not self-consistent and this therefore points to the need for a higher intuition than what is available to the Mind to take over. Secondly I plan to show how the practice of science leads to mental development and how this helps in one's personal yoga. In the third part I wish to discuss what yoga tells us about science and this I can do only by quoting Sri Aurobindo and the Mother.

My presentation will obviously be a very personal one, based on my own experiences and on knowledge that I have obtained. And so I must review my own background, especially for those of you who do not know me. I spent the most formative years of my life, between the ages of 6 and 22, in the Sri Aurobindo Ashram after having had my first contact with Sri Aurobindo and the Mother at the age of 4. My post-secondary education was carried out at the Sri Aurobindo International Centre of Education where I finished the Higher Course and then completed Specialised Courses in Mathematics and Chemistry. I then continued my studies at the University of St. Andrews in Scotland where I completed a B.Sc in Physics with first class honours and getting the class medal and then went on to complete a doctorate in Physics following research in very low temperature physics. Since then I have completed a career as a University Professor of Physics in Canada and, in this position I carried out research, first in low temperature physics and then established a laboratory on piezoelectric and other active transducer materials that is considered to be among the best in the world for characterising such materials. I retired as Head of my Department in 2007 and have since been dividing my time between Pondicherry and Canada.

Given my background, it is but natural that my own ideals have been very strongly shaped by the Vision of Sri Aurobindo and the Mother and their Yoga of

Self-Perfection, which includes the development of the Mind. Science is an activity that is controlled largely by reason and logic and so any contribution of science to human development has to be seen in the context of the development of the Mind and the latter's contribution to one's yoga. So the Mind comes into my presentation as an intermediary between Science and Yoga.

The basic object of science is to observe and understand the Truth of Nature. So both the scientist and the spiritual seeker are inherently searching for the Truth even if the heights aspired to might differ. The practice of science consists in making precise observations and then in making full use of one's mental faculties to analyse the results of the observations and earlier conclusions so as to establish rational laws to describe and predict the behaviour of Nature. This effort at understanding and model building is largely based on mathematical logic. In the next few minutes let us analyse the logical process. Here I will follow a presentation made in 1958 by Dr. M. Venkataraman, one of my favourite teachers, a strong devotee of Sri Aurobindo and the Mother and a world renowned pure mathematician who successively headed the Mathematics departments of the Universities of Madurai and Hyderabad. The logical process consists in making a series of affirmations each of which is supposed to be a "valid logical" consequence of affirmations made earlier. These reflect an unanalysable intuition in Man of a logical deduction being correct or not, an intuition that is inbuilt in all human beings and that is objective in nature. This is why humanity all over the world accepts mathematical scientific deduction as being the ideal process for expressing truth. This logical intuition can be codified and expressed as a collection of rules. For example:

1. When a proposition is asserted it can be reasserted (e.g. man is mortal).
2. If propositions A and B are true, then A and B as well as A or B are also true.
3. If A is true and A implies B then B is true.

And so on.

The intuitions of logic on which these propositions are based are clearly common to all rational human beings have been given to our minds *a priori*. These then seemed to be the key that will explain all things in the universe and lead to God's Truth. Science was considered well established as long as it was amenable to mathematical formulation and treatment and any activity was respected if it was scientific. And thus it was that scientists, after great labour, were able to proceed from success to success. Occasional stumbling blocks arose but rather than seek another intuition, scientists turned back to check that all was co-ordinated by the mathematical deductive logical process. And so the world seemed to progress even though it was clear that the moral texture of man had not kept pace with the rate of mental development and this led to much unhappiness and disasters.

But let us see if this scientific method is as perfect as it appears to be. Let us look back at one of the first signal successes of scientific activity: geometry, which had been worked out as an almost perfect discipline by Euclid in the 3rd century

B.C. The last of his postulates was that it was always possible to have parallel straight lines, the so-called parallel postulate. Through centuries mathematicians tried to prove this axiom as a logical consequence of earlier propositions but failed. In the 18th century, Gauss, often considered to be the prince amongst mathematicians, found that this postulate need not be true and soon after Bolyai, in Hungary, and Lobatchevsky, in Russia, had developed non-Euclidean geometries in which the parallel postulate was not true. The importance of this was not quite realised until Poincaré and Klein showed that non-Euclidean geometries could be built up from portions of Euclidean geometry itself. This was too bad! And things became worse when Einstein and Minkowski were able to show that the Universe itself was non-Euclidean!

The importance of the foregoing description of the developments in geometry lies in the fact that it made mathematicians sit up and take notice. They began to ponder on the meaning of whether a system was logically consistent or free from logical contradictions. How could they be sure that mathematics, as it had developed, would not lead to self-contradictions. After much work on the self-consistency of logical systems, they found that if such self-contradictions existed then there would be an inconsistency arising from the postulates that specify the number system. If the number system were God-given and could be proved to be free of contradictions then all would be fine. Unfortunately for the purveyors of logic, Godel proved that it was impossible to show that the number system was self-consistent. Since then other paradoxes have been found in the logical structure of mathematics that have not been solved to universal satisfaction.

Another difficulty arises in science from our supposition that logic should be universal and therefore objective. We are all aware that matter is made up of particles. We are also aware that energy can travel through empty space as seen, for example, in the transmission of light or radio signals by means of waves. Around a hundred years ago, it was found that no clear distinction could be made between matter and waves. Particles showed wave-like properties and waves sometimes behaved as if they were particles. This seeming contradiction could only be solved by the advent of quantum mechanics, a very mathematical theory, not susceptible to easy intuitive understanding. Although quantum mechanics has so far been able to explain most observed phenomena, it gives rise to a curious difficulty for it predicts, for example, that if we were to accurately measure or know the position of a particle, then it would be impossible for us to know its speed accurately. That is to say that in attempting to measure its position we would have influenced its speed and therefore imposed ourselves on what we were trying to observe. Indeed even the measurement of position need not be exact but a range of probabilities were possible, depending on the observation. This is a very remarkable conclusion: we can say in a very objective fashion that our observation is subjective, with a somewhat altered sense of the word "subjective". Any detailed analysis of this would have to be left to

another day but the result has led to considerable speculation about whether the observer's consciousness affects the results of an observation, thus upsetting the notion of objectivity on which all science was originally founded.

And so to quote Dr. Venkataraman: "We have followed the highest light that is vouchsafed to science and we see that it leads to a wilderness — or to the realisation that the lights on which it is founded are not completely self-luminous"!

The best scientific minds have not been able to show that the inadequacies that we have discussed can be solved by going deeper into science. A careful observation of the progress of science must inevitably lead us to the conclusion that, although much has been achieved, the human Mind is a limited instrument that is rather inadequate for the task of finding the Truth of nature that we scientists have set ourselves. This leads us to wonder whether the logical and deductive basis of our search for truth should not be replaced by higher intuitions that we might be able to access. Sri Aurobindo and the Mother, following earlier mystics, have made it clear that such higher realms of knowledge exist and can be brought into play.

In spite of the failures at the level of the foundations of science, there can be no doubt that the scientific and technological age, the age of Reason, if you like, has been a resounding success. From the steam engine to the sputnik and the splitting of the atom, science and its applications have transformed life completely and made its quality immeasurably richer. But in spite of all the technological advances, I would assert that the most important consequence of the age has been the flourishing and the development of the human Mind. Let us now look at this aspect a little more carefully, especially from the point of view of the individual Mind.

At a personal level, even the most successful scientist can only advance our understanding in a very small sphere. The advances are quite fragmentary and, more often than not, they give rise to further questions and new complexities. The developed mind with its main strength in the sphere of rational analysis is capable of dividing, sub-dividing, and comparing but finds it almost impossible to achieve any kind of total or synthetic picture and the physicists' dream of understanding Nature on the basis of a small number of Universal laws is as far from realisation as ever. This is in spite of the fact that the very effort of pursuing research is pushing ever further the development of the Mind itself. A careful observation of the progress of science must inevitably lead us to the conclusion that, although much has been achieved, the human Mind is a limited instrument that is rather inadequate for the task of finding the Truth of nature that we scientists have set ourselves. Even amongst the cases when some modest understanding has been achieved, many of the scientists responsible have confessed to obtaining their basic ideas intuitively rather than through the application of the rational faculty. In my own case, these ideas have often come when I have been involved in an activity that requires only a low level of mental awareness, such as gardening or driving on the highway (in Canada) late

at night. Thus the practising scientist, having pushed his mind to its limits, is uniquely aware of its limitations and he has an inkling of realising knowledge from beyond the mind. Being also aware of the scientific basis of human evolution, he has little difficulty in accepting the need for further evolutionary processes that will develop faculties more powerful than the Mind, and particularly, faculties that will enable us to get to the Truth by direct knowledge and synthesis. A clear knowledge of the limitations of human mind, and of science, also makes the scientist more welcoming of knowledge based on intuition and inspiration and it ensures that the well developed Mind is a modest Mind. I can hardly emphasise too strongly that the proper use of any tool requires a good knowledge of its limitations. So we see that scientific research helps to develop the mind and our power of reasoning, makes it aware of its limitations and makes it open to higher methods of getting to the Truth. Finally, let me point out that knowledge of its limitations makes the mind refrain from entering regions beyond its ken and, in particular, it becomes a willing partner in quietening itself for meditation. Thus far from being a hindrance, Science makes a very positive contribution to the Yoga of Self-Perfection.

Other benefits accrue from the pursuit of scientific research. Firstly, research is recognised to be a co-operative exercise amongst collaborators working together. Indeed it is a well-understood rule that all scientific papers must be written in the first-person plural, even if there is a single author. A paper written in the first-person singular is generally unacceptable. This general attitude significantly helps to reduce the personal ego. Secondly, one of the most important aspects of a physicist's training is to learn the impossibility of making exactly correct measurements. All measurements, made using methods devised by the mind, have uncertainties. While a good scientist must be aware of and must report the amount and nature of these uncertainties, their inevitability adds to the mind's understanding of its limitations as regards finding the ultimate Truth. Thirdly, the pursuit of scientific research requires that the scientist have an open mind without any pre-conceptions and personal predilections. He must be able to observe, analyse and report his results as honestly as possible. Thus the scientist develops the quality of being able to think independently of the baggage of personal history and personal experiences that he accumulates during his life. This is exactly the quality of detachment that is such an important part of a developed mind and that is so essential in yoga. Finally, one very important conclusion of science from the spiritual perspective is that it shows you that what one perceives is very different from the reality. For example a "solid" piece of metal is really a large number of fundamental particles whirling around at high speeds in empty space. This testifies to the illusory nature of our perceptions.

We thus come to the interesting conclusion that the methods of science themselves lead us to realise the deficiencies in the foundations of science and the limitations of the human mind. This points directly to the need for evolutionary change so as to access directly the higher realms of knowledge, of which some

inkling has already been obtained by scientists.

There have undoubtedly been scientists who have questioned faith on the basis of reason and logic. These have usually resulted from a lack of using the methods of science to a study of itself, given that one of the indispensable parts of any scientific theory is an understanding of the area of applicability of the theory itself. A mind that does not understand its own limitations is a poorly developed mind indeed! I would also point out that much of the revolt of science and reason against religion is largely based on knowledge of the practice of fundamental and scriptural religions, specially Christianity and Islam, and the arguments given would not apply to the evolutionary Vision of Sri Aurobindo and the Mother. Even the much touted conflict between evolution and creationism disappears in Sri Aurobindo and the Mother's Vision as evolution itself is a part of the Divine's work.

Our knowledge of the limitations of the human mind does not, of course, take away from the importance of perfecting it. Foremost amongst the qualities of the mind are its ability for rational and logical thought and analysis, and its ability to be a disinterested seeker for the Truth thus opening up the consciousness out of the limits of individual ego and individual emotions. The maximum development of any human quality, be it mental or physical, occurs when it is pushed to its limits and therefore it is in scientific research that the maximum benefit lies. The study of science as carried out in school and undergraduate college education does provide an introduction to the methods and knowledge of science but is of more limited value in the development of the mind. This is particularly so in the lecturing style of education where it is usually the lecturer who does most of the thinking.

So we see that the practice of science helps to develop the mind and helps it to understand its limitations both in its nature and its range of applicability. By understanding its own inadequacy the Mind is able to accept the existence of higher levels of consciousness and it can become a willing partner in quietening itself as a preparation for meditation and contacting a higher consciousness. It has been my experience that the developed mind helps to distinguish between revealed Truth and input received from lower parts of our being; also revealed Truth does not then appear to be strange or magical to it. Thus, the developed mind is a modest mind and a detached mind. It enables us to rise above our personal ego and appreciate the universality of knowledge and of Truth. Indeed the detached mind can develop the ability to look at oneself from the outside and go on to become a part of an impersonal and Universal Mental Consciousness and it can act as an honest transmitter of revealed Truth.

Next, let me consider the effects of my personal yoga on my scientific career. The result of offering one's work to the Divine is that it makes one impervious to external evaluation but one does not fail that evaluation. By working to standards that one sets oneself based on one's yoga and that are higher than those set by one's superiors, one automatically satisfies the criteria expected of one in the outside

world and if anything, one's progress in terms of external circumstances is accelerated. Secondly, I found that the more consciously I was able to offer my work (research) to the Mother, the more successful it became in the scientific and worldly context; I and my group became more productive and our international reputation grew. This would, of course, be true no matter what the field of one's work.

From my personal experience then I would say that my work as a scientist and my pursuit of spiritual progress have been complementary and have helped each other; there has certainly not been any conflict between the two aspects of my life.

Now what about the yogic view of Science and Mind? For this we must turn to what Sri Aurobindo and the Mother have said. What I have said so far is based on my personal experience and I have refrained from quoting Sri Aurobindo and the Mother; quotations taken out of context usually lose much of their meaning and are in danger of being misinterpreted. After I had my first darshan of Sri Aurobindo at the age of 4, a messenger brought me a book that Sri Aurobindo had signed and sent to me. It was a copy of *The Brain of India* and I must have mumbled something to indicate that I could not understand anything!! The next morning the messenger was back with a message from Sri Aurobindo: the book was not to be understood and I was not to ask anyone to explain its contents; I could read it from time to time and as I developed I would know more and more of what was in it. I also recall from the time when I was a student at the Sri Aurobindo International Centre of Education that when teachers asked the Mother about using one or other of Sri Aurobindo or Mother's books in class, Mother often refused; in one case when Mother did finally agree, she specified that there would be no discussion or explanation after readings from their books. And so it is that I have not used quotations inside my talk as they are in danger of being misinterpreted by the context in which I might have used them.

However, now that I have finished, I will give a few quotations from Sri Aurobindo and the Mother to give the Yogic perspective on Science and on the Mind.

1. Sri Aurobindo in *Letters on Yoga*, SABCL, Vol. 22, p. 157:

Intellect, if it goes sincerely to its own end, has to return and give this report: "I cannot know; there is, or at least it seems to me that there may be or even must be Something beyond, some ultimate Reality, but about its truth I can only speculate; it is either unknowable or cannot be known by me." Or, if it has received some light on the way from what is beyond it, it can say too: "There is perhaps a consciousness beyond Mind, for I seem to catch glimpses of it and even to get intimations from it. If that is in touch with the Beyond or if it is itself the consciousness of the Beyond and you can find some way to reach it, then this Something can be known but not otherwise."

I think that from what I have said today, the developed Intellect is not far from saying this.

2. Sri Aurobindo writes about the importance of the mind in a piece on supermind and humanity, *CWSA*, Vol. 13, pp. 571-572:

The visible imperfections and limitations of mind in the present stage of its evolution here we take as part of its very nature; but in fact the boundaries in which it is still penned are only temporary limits and measures of its still incomplete evolutionary advance; its defects of methods and means are faults of its immaturity and not proper to the constitution of its being; its achievement, although extraordinary under the hampering conditions of the mental being weighed down by its instrumentation in an earthly body, is far below and not beyond what will be possible to it in its illumined future. For mind is not in its very nature an inventor of errors, a father of lies bound down to a capacity of falsehood, wedded to its own mistakes and the leader of a stumbling life as it too largely is at present owing to our human shortcomings: it is in its origin a principle of light, an instrument put forth from the Supermind and, though set to work within limits and even set to create limits, yet the limits are luminous borders for a special working, voluntary and purposive bounds, a surface of the finite ever extending itself under the eye of infinity. It is this character of Mind that will reveal itself under the touch of Supermind and make human mentality an adjunct and a minor instrumentation of the supramental knowledge. It will even be possible for the mind no longer limited by the intellect to become capable of a sort of mental gnosis, a luminous reproduction of the Truth in a diminished working, extending the power of the Light not only to its own but to lower levels of consciousness in their climb towards self-transcendence. Overmind, Intuition, Illumined Mind and what I have called Higher Mind, these and other levels of a spiritualised and liberated mentality, will be able to reflect in the uplifted human mind and its purified and exalted feeling and force of life and action something of their powers and prepare the ascent of the soul to their own plateaus and peaks of an ascending existence. This is essentially the change which can be contemplated as a result of the new evolutionary order, and it would mean a considerable extension of the evolutionary field itself and will answer the question as to the result on humanity of the advent of Supermind into the earth-nature.

3. Mother in her class of 18 December 1957:

And scientists come to this conclusion — like the uncompromising spiritualists of the past — that the world is an illusion. That is a great discovery, very great. . . . One step more and they will enter into the Truth.

4. Mother in her class of 29 May 1957:

I may add, moreover, that this intellectual human science, such as it is at present, in its very sincere effort to find the truth, is, surprisingly enough, drawing closer and closer to the essential truth of the Spirit. It is not impossible to foresee the movement where the two will unite in a very deep and very close understanding of the essential truth.

5. An aphorism from Sri Aurobindo (No. 504):

Science is chiefly useful to the God-lover and the God-knower because it enables him to understand in detail and admire the curious wonders of His material workmanship.

6. Sri Aurobindo in *Letters on Yoga*, SABCL, Vol. 22, p. 189:

Yoga, however, is scientific to this extent that it proceeds by subjective experiment and bases all its findings on experience; mental intuitions are admitted only as a first step and are not considered as realisation — they must be confirmed by being translated into and justified by experience. As to the value of the experience itself, it is doubted by the physical mind because it is subjective, not objective. But has the distinction much value? Is not all knowledge and experience subjective at bottom? Objective external physical things are seen very much in the same way by human beings because of the construction of the mind and senses; with another construction of mind and sense quite another account of the physical world would be given — Science itself has made that very clear.

7. Sri Aurobindo in the *Letters on Yoga*, SABCL, Vol. 22, p. 206:

Most continental scientists have now renounced the idea that Science can explain the fundamentals of existence. They hold that Science is only concerned with process and not with fundamentals. They declare that it is not the business of Science nor is it within its means to decide anything about the great questions which concern philosophy and religion. This is the enormous change which the latest developments of Science have brought about. Science itself nowadays is neither materialistic nor idealistic. The rock on which materialism was built and which in the 19th century seemed unshakable has now been shattered.

8. From the Mother's comment on Sri Aurobindo's aphorism No. 75, 24 May 1962:

But certainly, objective, scientific knowledge carried to its extreme, if it is possible for it to become absolutely total, leads at least to the threshold. That is what Sri Aurobindo says. Only he says that it is fatal, because all those who have devoted themselves to that knowledge, have believed in it as an absolute truth, and for them this has closed the door to the other approach. In that way it is fatal.

But according to my personal experience, I could say that for all those who believe in the *exclusive* spiritual approach, the approach through inner experience, at least if it is exclusive, is also fatal — because it shows them *one* aspect, *one* truth of the Whole, not the Whole. The other aspect seems equally indispensable to me, in the sense that while I was so totally immersed in the supreme Realisation, it was absolutely indisputable that the other realisation, the outer, the illusory one, was only a distortion, probably accidental, of something that was *just as* true as that one.

It is this “something” that we are searching for — perhaps not only searching for it, but *making* it.

We are being used so that we can participate in the manifestation of ‘that’, of ‘that’ which is still inconceivable to everyone, because it is not yet there. It is an expression that is yet to come.

That is all I can say.

9. From the Mother’s comment on Sri Aurobindo’s aphorism No. 75, 24 May 1962:

For a very long time it seemed to me that if a perfect union could be achieved between the scientific approach carried to its extreme and the spiritual approach carried to its extreme — its extreme realisation — if both could be joined, we would find, we would naturally obtain the Truth we are seeking, the total Truth. But with the two experiences I have had — the experience of external life, with universalisation, impersonalisation, in short, all the yogic experiences one can have in the physical body, and on the other hand the experience of total and perfect union with the Origin — now that I have had these two experiences and that something has happened, which I cannot describe yet, I know that the knowledge of the two and the union of the two is not enough; that they lead to a third thing and it is this third thing which is in the making, in course of elaboration. It is this third thing that can lead to the Realisation, to the Truth we seek. . . . Yet the formula will come, I know. But it will come through a series of experiences that must be lived and which I have not yet had.

ITINERARY OF A CHILD OF THE CENTURY

Pavitra's Correspondence with His Father

(Continued from the issue of October 2011)

Chapter XIII *(Continued)*

A Time of Bereavements

SRI AUROBINDO ASHRAM

Tel. Addr.
AUROBINDO — PONDICHERRY

PONDICHERRY
India
December 19, 1952

My dear Father,

Some time back I received the letter of end-November in which you told me about the troubles that the carbuncle in your left finger was causing you. I hope that now you have got rid of it.

Your reaction on reading Sri Aurobindo and the Mother's views on the future of humanity is understandable. But I think that the difficulty arises from what you think of present humanity, as it is. Evidently, so long as men continue to move in ignorance and egoism, they will be subject to suffering and death. In any case, the idea of the victory over old age and death has been planted in the thought of humanity, which goes to prove that it is a future possibility. What the intelligence can conceive is surely realisable in a more or less distant future.

When one thinks of the enormous step that separates man from the first animals and how impossible the present development of the intelligence and the conquest of matter would have seemed at the time of the huge reptiles of the Mesozoic period, the development envisioned by Sri Aurobindo cannot be considered too daring.

The question that you ask me regarding what will happen to me in my old age, when I shall be incapable of serving, does worry me a little. I must tell you that I categorically refuse to think about it, firstly because everyday experience shows me that it is useless. We are totally incapable of foreseeing what the future will be, and in the unstable period which we are traversing, where all the values are constantly being questioned, be they of political regimes or finance, to wish to be assured

about one's old age seems to me a difficult, if not impossible, task.

And then, would it not be a lack of confidence? I have decided once and for all to give myself to the Divine and my whole life has been to perfect this self-giving progressively and totally. I do not deny that it is very difficult and that I am still far from perfection. But, all the same, my experience is that in so far as I can realise this self-giving with sincerity and confidence, the events do arrange themselves for the best — for me and for the others, taking into account that the condition of the world is not brilliant but of which I am a part. Logically I should apply this experience and act accordingly.

This does not mean that I expect to have an old age sheltered from all material worries. What it will be, I do not know, and I do not ask for anything. I know that Nature is least concerned about individuals and that, in the turmoil and convulsions which may occur, I risk being swept away and broken like the others. But I have dedicated myself to a task without asking for remuneration, without demanding compensation. I expect nothing from men, not because I know them to be ungrateful, but because I do not see that they have any obligation towards me. Whatever comes to me, I accept with gratitude and love, like a gift from God. But I would not like to impose on others an attitude regarding me, something which they would not spontaneously assume.

If I have found a refuge against all the vicissitudes, it is in me, in the depths of my inner being. The certitude, the light, the effective and close support are there. Whatever happens, I hope never to lose the divine Presence. That is my fervent and sincere prayer. For the rest, it does not matter! I expect nothing from life . . . only to see God progressively reveal himself. If He wants to use me so that I participate consciously in His manifestation, that will be good. If He judges me worthless and rejects the instrument as unfit, that too will be good.

This is somewhat severe a declaration of faith on a Christmas Eve. I hope that you will not hold it against me.

My thoughts will be with you especially during this end of the year. I request you to embrace Albert, Denise and the children on my behalf and give them my best wishes for the New Year. My affectionate and sincere remembrances to all the members of the family.

And you, my dear Father, I hold you close to my heart lovingly.

Your son,

Signed: Philippe

SRI AUROBINDO ASHRAM

Tel. Addr.
AUROBINDO — PONDICHERRY

PONDICHERRY
India

[The date of this letter is not known. It is probably of April 1953]

My dear Father,

On receiving your letter from Monte Carlo, my thoughts travelled back to the year 1920, to the days spent with all of you at Cap-d'Ail. Since then much time has elapsed; many countries, many faces and experiences have imprinted their images on my memory, but the recollections of these old moments have remained vivid. That is why I want to send you these few words so that you receive them there before returning to Paris.

On your return, you will surely have our friend Paul Repiton visiting you; he has just gone back to Paris to settle his family matters. I have asked him to see you so as to give you recent and correct news. This time he has been with us for a year and a half and hopes to return soon.

There will also be a projection of a film on the Ashram. The person who organises the Centre of Sri Aurobindo Studies in Paris, André Morisset, is arranging it. I have told him to inform Albert. I hope that your eyes will permit you to see these pictures where you will see me again.

A friend, François Baron, a former governor of French India, has just published a book in which he devotes a chapter to the Ashram. I mention it to you because there he narrates the conversations that we have had in the past. Albert could find these passages and read them to you.

I think of you everyday and I wish to tell you again and again of my love and my gratitude.

I embrace you affectionately.

Your son,

Signed: Philippe

* * *

SRI AUROBINDO ASHRAM

Tel. Addr.
AUROBINDO — PONDICHERRY

PONDICHERRY
India
May 26, 1953

My dear Father,

Your letter has given me a shock. Have I then been negligent to the point of making you anxious or making you think that I have something against you? And yet nothing is further from the reality than this supposition. And it is not even a simple negligence on my part. Your last letter is on my desk in a folder which I use everyday and which contains letters that need an urgent reply. Unfortunately your letter has been in this folder for months (along with some others). Not a week passes when I do not tell myself: as soon as I will have a quiet hour, I shall write to Papa. But I realise that months have passed and that quiet hour has not come. You will tell me that I would surely have managed to find one hour since January. I admit it. It could have been done by taking one of my nights, what I am doing today and should have done earlier! I beg your pardon for having been the cause of this anxiety and I promise you in future not to remain silent for such a long time.¹

Since January, I had kept aside for you the two photos I am attaching here (the bigger one is from last year) with the intention of sending them to you without delay. It shows me with Repiton whom you will recognise, and André Morisset, the Mother's son who has come to spend a fortnight in the Ashram. He is a businessman, an engineer, just like Albert, and he is exactly of the same age (born in 1898). Thus there are now three Polytechnicians in the Ashram. I would be surprised if Albert and Morisset did not have common friends. I would very much like that they should meet, because Morisset knows us well, having come here twice already. Like Albert, he often goes to America on business.

Your letter from Monte Carlo took me back to the Spring of 1920, 33 years ago, to the time we spent on vacation at Cap-d'Ail. Yes, it is a beautiful country. But from the point of view of the climate, I do not complain about that of Pondicherry. We have, at least during ten months, the Côte d'Azur sky. Evidently during three or four months, it is a little too hot. But, even then, one must not complain. The nights are pleasant. And then one ends up getting used to it. In any case, this year I have not suffered from it.

The work has not diminished; on the contrary. Weiss has spoken to you about the University Centre. It is the natural extension of our School which has now existed for ten years. Next year we shall probably have five courses in higher education:

1. Philippe does not seem to take into account the preceding short undated letter.

four in philosophy and one in mathematics. I am in charge of this last one. Philosophy is naturally the area in which the teachings of Sri Aurobindo may most naturally be translated.

Repton has settled here since December. Without being a specialist in it, he gives me a helpful hand and relieves me of a part of my workload.

I often think of you, my dear Father, and always with regret that you have not known the Ashram, that you have not been able to see with your own eyes our life and our efforts. You would surely have understood us. I am not saying that you would have become one of us. But you would have perceived the living ideal which we wish to realise. You would have loved us, and probably, in the core of your heart, you would have approved of us. Quite often I dream of you, sometimes with much affection. Perhaps your thoughts come to me when I am asleep and then I receive them more easily.

I ought to write to Albert. He too must be thinking me to be very negligent. How to explain that time passes so fast, that really a month does not seem to last longer than a week and a year longer than a month? It looks like an exaggeration, and yet it is so. Do you have any news of this magistrate, Monsieur Callier, who was to go to Paris to show a film on India and the Ashram? I am afraid that it would have fallen through for some reason or the other. We are preparing a long film on the Ashram and the School, most of it in colour. It will take a few more months still. I hope that we shall be able to send a copy to France.

I end for today, my dear Father, and I request you not to be angry with me if involuntarily I have caused you pain.

My brotherly thoughts to Albert and Denise.

I embrace you lovingly.

Your affectionate son,

Signed: Philippe

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SRI AUROBINDO ASHRAM

Tel. Addr.
AUROBINDO — PONDICHERRY

PONDICHERRY
India
July 24, 1953

My dear Father,

A few days ago I received the letter which you had put in the envelope addressed by Maman. You can imagine my surprise on seeing her handwriting and the question mark which sprang up in me. First of all I verified the post mark, thinking that it was a lost letter reappearing after a few years. On opening the envelope the thought occurred to me that you might have asked Denise to write the address. But how could her handwriting have become so similar to Maman's? In any case I take this double letter as a symbol of your double affection. Is not everything on earth a symbol?

Your letter made me happy, even though it announced to me the difficult patch you have just passed through. I hope that you can all the same continue to participate in a certain number of activities, and especially a little bridge. I consider bridge to be a good mental exercise, a little like mathematics, or the study of the Chinese alphabet: a means to acquire and maintain perspicacity and lucid judgement as well as a good memory. All human activities are now like games for me. Contrary to what I thought formerly, subtle differences are significant in their intrinsic qualities. One must accept the rules and play the game; only one must be able to choose one's game. What is important above all, is to become conscious of the One who plays . . .

We have just finished making a film on the Ashram. It is a silent film, but with an English commentary, of two hours' duration. Copies are being made and I think that we shall be able to send a copy to France in Autumn. We have not yet decided whether we shall make a French version of it, which would take a little more time.

Anyway, I hope that you will be able to see the film, because it presents many concrete aspects of our life and our activities: a philosophy in action. You will find me there in several places, notably as a professor, and I think that you will recognise me in spite of the years. There is a scene where all three of us appear: André Morisset, Repiton-Préneuf and I. It is not a film made by professionals; still I do not think that it will disappoint you.

We have had quite a mild summer — at least till now. The rainfall was not bad, which kept the temperature down. Our athletic season is in full swing and the next *Bulletin d'Éducation Physique* will bring you a new harvest of photographs.

We have an influx of visitors from all over the world and that takes up much of our time. Luckily Repiton relieves me sufficiently of the task of receiving French visitors.

I hope that you too had a pleasant summer. I am sending this letter to Paris; they will surely forward it to you. I do not have new photos of mine, you would have received the ones in my last letter.

I feel sad about La Minelle: a childhood memory, with which you were intimately associated. The settings where I see you are La Minelle and Pigalle Street.

My affectionate thoughts to you, to Albert. My sweet remembrance to Denise and to the family.

I embrace you very lovingly.

Your affectionate son,

Signed: Philippe

(To be continued)

PHILIPPE BARBIER SAINT HILAIRE

(Translated by Aniruddha Sircar from the original French *Itinéraire d'un enfant du siècle* by Philippe Barbier Saint Hilaire, published by Buchet/Chastel, Paris, 2001.

Our thanks for their kind permission.)

When one has had a true aspiration, unselfish and sincere, one cannot even ask the question anymore; for the vibration of aspiration, luminous and calm, has nothing to do with the vibration of desire, which is passionate, dark and often violent.

The Mother

(Some Answers from the Mother, CWM 2nd Ed., Vol. 16, p. 411)

A CONVERSATION WITH PAVITRA

[François Baron was Governor General of Pondicherry (March 1946-August 1947) and High Commissioner of Pondicherry (August 1947-May 1949)

We reproduce here his account of his conversation with Pavitra (P. B. Saint Hilaire).]

THE MOTHER is French. She is the most noble lady I have ever met in the world. Frail, elegant, sovereign. She has realised, along with Sri Aurobindo, the divine union. To see her is to be happy, to listen to her is to understand everything.

She is helped in her daily organisational activities by a remarkable disciple: Pavitra.

Pavitra too is French, an alumnus of the Ecole Polytechnique. At the end of the war of 1914-18, he roamed the world in quest of Wisdom. It was in Pondicherry that he found it.

Tall, thin, calm, good-natured, somewhat as I would imagine Father Foucault would look like. He greets me at the door and we walk slowly in the garden before coming to his room.

A solemn joy radiates from these shady gardens filled with flowers and foliage among which squirrels and familiar birds chase each other and play.

A soon as I settled into a light and sturdy armchair designed by him, between a very modern radio and a shelf filled with philosophical and technical books, I spoke to him about my dissatisfaction with myself, the troubles of my spirit through the many imperfect intellectual constructions, my errant searching for happiness, and above all, my hope, with the help of the Ashram, to learn the means of obtaining peace.

I fumbled for words, eager to prove my frank sincerity, looking at him straight in the eyes, hopefully, foolishly anxious not to say simple things in a childish manner, and yet, relieved, happy to put off, before a man of my own age, the intellectual cloak which Frenchmen rarely ever remove.

When I had finished my clumsy presentation, he smiled and looked at me, and his smile was just the opposite of an ironical smile. It was a smile, not indulgent, but fraternal and generous, a smile with which I have always been greeted by men who have a deep inner life.

Gently tilting his head he spoke after a brief and intense silence.

“Your visit and your words prove that there is in you an aspiration for the truth, but it is not necessary to come to India to find it. Religions may differ, their dogmas and their rituals may vary according to the culture, the tradition and even the climate, but all the mystics of all the religions describe the same experiences,

often in identical terms.”

In answer, I vehemently expressed that it was not my wish to shut myself up in a monastery or even an Ashram. I simply wished to lead a more conscious life, that is to say, to have an adequate explanation of this world and life.

“It is not necessary,” he said, “to live in seclusion to have an experience, or even a spiritual life. But it is necessary to have a spiritual experience in order to have a higher consciousness, to have a contact with the reality. It is only then that you will have the explanation of everything, and how valid that is! What is most difficult is to speak the same language in this domain, for words do not have the same meaning, before or after the experience. As the English saying goes, ‘The proof of the pudding is in the eating’. I would advise you therefore to try meditation, the foundation of all experience. Call and let the light from above descend into you. Make a void in your mind, drive away all the ideas springing up in your head, try to get a mental silence, then we shall talk further. For then, the words ‘silence’, ‘peace’, ‘light’, ‘truth’, ‘unity’, ‘reality’, ‘ineffable happiness’ will have as concrete a meaning as the objects of the physical world: you would have seen them directly with the absoluteness of evidence . . .”

“You see,” he continued, “the entire difficulty comes from the intellect which we, especially in the West, have made the summit of human capacity. It is at the same time an aid and an obstacle. It is an aid precisely because it sweeps clean, classifies, compares, interprets, explains. But it is incapable to give us a certitude or an answer to the simplest questions about God, the universe and ourselves. Moreover, that is the true knowledge, and the intellect cannot, absolutely cannot, grasp it. The intellect can only fret hopelessly when we ask our heart and our spirit to open to this supreme consciousness. We must then tell it to shut up for a while. That is why mental silence is so important in meditation.

“Are there not men,” I asked him, “men who are more sensitive to these higher perceptions, beings endowed with the capacity to hear ultra-sounds, see infra-red and ultra-violet, and whose range is greater than the usual human range?”

“No doubt, there are and there have been exceptional beings. Great mystics have heard celestial music because they intensely wished to hear it. They have discovered, unconsciously, before the others, the means of getting into contact with higher realities, but all men of good faith and ardent aspiration can, by following a certain discipline, have a fundamental spiritual experience, that is to say, transform his consciousness and his life.”

I then told him that I saw in the faint return to the mystic sentiment in the West, signs of a reaction against the materialistic explanation of the universe, and that having been part of the surrealist movement, I had a great sympathy for the non-rational.

“The fact is,” he explained, “that the world is invisibly evolving towards a new stage. Experimental science is constantly being faced with irrational contradictions

because human reason demands trenchant distinctions. But we know today that material space is finite but without limits, that the nature of light is at once wave-like and particulate, and that matter is also energy. Thus matter too is divine because the Divine has involved himself in his creation. We are at one moment of our evolution and there is no reason for evolution to stop here and to the man of tomorrow we may be as different from him as we are now different from prehistoric man. Sri Aurobindo affirms that we are on the threshold of a new stage. It is certain that humanity must either unite or perish.”

“What will be the man of tomorrow be like?”

He looked at me smiling and said, “The ape could never conceive what his evolved successor would be. Cro-Magnon man had little intelligence but a lot of muscle and wonderful instincts. The instincts have dwindled, the muscles too, and it is the intelligence which developed. The man of tomorrow will certainly not be today’s superman, it would serve no purpose. His characteristic will be a new quality of consciousness, new faculties of the spirit, like intuition, but not a development of his present faculties. These will not disappear, but will be part of a new arrangement and the highest place will be given to the highest faculty, a supra-consciousness. The supramental will seem very close to what Bergson called a higher common sense. The subconscious, the conscient, the supra-conscient are the stages of our evolution. It is not an article of faith, it is an experiential certitude. Sri Aurobindo and the Mother are showing us the way because they have themselves trod the path and have attained the supramental conscience.

“Here are some books. Read them. Begin with the intellectual study. The result usually is to calm the reasoning and questioning intellect and to lead it, this famous intelligence, once satisfied, to accept a mode of knowing that surpasses it. But the ultimate proof is personal experience. It is possible to undertake the yoga without believing in God. What is indispensable is an ardent aspiration of the heart and spirit for a life more true, more beautiful, more vast and the willingness to abandon all to realise it.”

I heard him with great interest.

Sometimes, a squirrel would perch on the window sill, looking at us with interest, then would be off with a leap. It was not for us a cause for distraction; it was Nature’s smile from a friendly world.

I was thunderstruck with astonishment. He told me that man was far from his fullness, that he was the fruit of past lives and the flower of his future lives, that the Divine was in each one of us, as the sun is in the dewdrop. I felt myself liberated, being part of a great hope, with a reason for life, with much bread on the table and a huge appetite. A sentence of Pascal flashed through my mind, “Humble yourself, O impotent reason . . . Learn that man exceeds man infinitely.”

When he accompanied me slowly through the misty garden in the evening, I stunned, he in his lucid dream, he continued, “There is no iron curtain that blocks

off the world. Rather a sort of silk curtain, fortunately transparent, separates the West and the East, and on both sides, men are miserable because both have lost the way. On one side, those who are faithful to the earth but not faithful to their souls; they place value on material happiness. On the other side, those athirst for the eternal, neglect wrongly the human condition.

“It is time to make a synthesis, for that is the drama of societies and of each one of us. That is why revolutions, politics, even wars are less important today than the spiritual adventure which alone can change the heart and the consciousness of men.”

I left him, in the dusk, with many books in my hands and an impatient need of solitude.

FRANÇOIS BARON

(From *Les Frontières du Bonheur* by François Baron,
Gallimard, 1954. Translated for *Mother India*.)

To live in the consciousness of the Atman is to live in the calm unity and peace that is above things and separate from the world even when pervading it. But for the psychic consciousness there are two things, the world and itself acting in the world. The Jivatman has not come down into the world, it stands above, always the same supporting the different beings, mental, etc., which act here. The psychic is what has come down here — its function is to offer all things to the Divine for transformation.

Sri Aurobindo

(*Letters on Yoga*, SABCL, Vol. 22, p. 277)

100 YEARS OF RUTHERFORD'S ATOMIC NUCLEUS

ERNEST RUTHERFORD (1871-1937) was a native of New Zealand. In 1908 he received the Nobel Prize in Chemistry for his investigations into the disintegration of the elements called radioactive substances.¹ Rutherford seems to be the only physicist to do his greatest work after receiving his Nobel Prize. The work we are referring to is his study and interpretation of the scattering of alpha particles (another name for the nucleus of the helium atom) from a thin gold foil which he carried out in the University of Manchester. It was found (1909) that alpha particles showed the most amazing and unexpected large angle deflection, also called back scattering. In 1911 he came out with his celebrated formula to explain the hard scattering and this led to the discovery of the nucleus inside the atom. The deflection of alpha particles was explained due to the concentrated positive charge, called 'nucleus', of the gold atom located at its centre. Almost all of the entire mass of the atom is in this nucleus, and the size of the nucleus is about one-hundred-thousand times smaller than the atom; the atom is therefore mostly empty. So the back scattering or the occasional bouncing back of the alphas was due to this small hard nucleus located at the centre of the atom.

Rutherford made another big discovery in 1919: that nuclei can be disintegrated by bombarding them with alpha particles; example: breaking up of a nitrogen nucleus by an alpha particle into an oxygen isotope (O^{17}) and a proton. This opened up a new chapter in physics, called nuclear physics, which dominated the scenario for the next several decades. 2011 being the centenary of the discovery of the nucleus by Rutherford, we attempt, in this article, to trace the development of ideas leading to its discovery.

The beginning: Speculations as to the ultimate structure of matter and the laws governing the universe are certainly very old, maybe more than three thousand years old. A new dimension was added only about 500 years ago when people began to base their ideas on experimental observations. The credit for the foundation of experimental methods goes to Galileo Galilei (1564-1642) who pioneered the new era in physics through his investigations of freely falling bodies, his observations of celestial bodies using the telescope, of how pendulum swings, and so on. He also discovered a great principle called the principle of inertia.² The first great law, the law of gravitation, was discovered by Isaac Newton (1642-1727) around 1687.³ Thus classical physics was born, which dominated science for the next two hundred years.

Gas laws and atomic hypothesis: The study of small objects, invisible to our eyes,

started in the mid-seventeenth century, most probably through the study of the properties of air (gas) by Boyle around 1660. He came out with an empirical law, called Boyle's law, *i.e.* at constant temperature the product of pressure and volume of a gas (air) is constant. During the next several decades many new gases were identified: hydrogen, nitrogen, oxygen, etc. Then a breakthrough came in terms of simple regularities when the masses of substances formed in chemical reactions were determined quantitatively with the balance. These are:

- (i) Law of constant proportion (Proust 1799): Substances combine only in fixed simple proportions. Examples: (a) 1 gm of hydrogen combines with 8 gm of oxygen to form 9 gm of water. (b) 1 gm of hydrogen combines with 35.5 gm of chlorine to give 36.5 gm of hydrogen chloride.
- (ii) Law of multiple proportions (Dalton 1808): One substance can combine with another one to form several compounds. Example: 14 gm of nitrogen combine with 1x8 gm of oxygen to form nitrous oxide, with 2x8 gm of oxygen to give nitric oxide, with 3x8 gm of oxygen to form nitrous anhydride, with 4x8 gm of oxygen to give nitrogen dioxide, or with 5x8 gm of oxygen to form nitric anhydride.

To explain the above laws, Dalton, during 1805-1808, put forward the atomic hypothesis. All matter is made up of atoms (the word 'atom' means 'indivisible' in Greek), and atoms of individual elements combine to form the atoms of compound substances. But it was not clear how many atoms of each element combine to form the compound atom.

In 1809 Gay-Lussac observed that in the case of gases, simple laws also hold for their volumes at constant pressure. Examples: (a) 2 volumes of hydrogen combine with 1 volume of oxygen to form 2 volumes of water vapour. (b) 1 volume of hydrogen combines with 1 volume of chlorine to give 2 volumes of hydrogen chloride.

In 1811, Avogadro interpreted correctly the above facts, in what are known as Avogadro's hypotheses, as follows: (i) All gases consist of atoms or molecules.⁴ (ii) Equal volumes of all gases, at the same temperature and pressure, contain equal number of molecules. The significance of this hypothesis may be illustrated from the chemical reaction of hydrogen and oxygen mentioned above: the combination of two volumes of hydrogen with one volume of oxygen to form two volumes of water is equivalent to the statement that two molecules of hydrogen combine with one molecule of oxygen to form two molecules of water. Similarly the observation of 1 gm of hydrogen combining with 8 gm of oxygen to form 9 gm of water means that a molecule of oxygen is eight times and two molecules of water nine times as heavy as two molecules of hydrogen.

We now introduce the concepts of atomic and molecular weights from the relative weights discussed above. These are the weight of an atom and that of a molecule. Here the weights are not measured in grams, but with reference to a standard element. The standard element chosen is carbon C^{12} with an atomic weight as 12. With this convention, the atomic weights of some atoms (neglecting the figures after the decimal point) are: hydrogen=1, carbon=12, nitrogen=14, oxygen=16, and so on. The next interesting question is: what is the real mass of an atom, say that of a hydrogen or carbon or oxygen, in grams? The answer lies again with Avogadro's hypothesis: expressing the atomic weights in grams for elements, *e.g.* 1 gm of hydrogen, 12 gm of carbon, 16 gm of oxygen, and so on, all of them will contain the same number of atoms. This number, a universal constant, is known as Avogadro's number and is usually denoted by N_0 or N_A . This has been determined in very many different ways, and its value is (neglecting the figures after the decimal point): $N_0 = 6 \times 10^{23}$. It means the mass of a hydrogen atom is: $1/6 \times 10^{23} = 0.16 \times 10^{-23}$ gm, that of carbon is: $12/6 \times 10^{23} = 2 \times 10^{-23}$ gm and that of oxygen is: $16/6 \times 10^{23} = 2.6 \times 10^{-23}$ gm.

The understanding of electricity during the beginning of the nineteenth century, through its accidental discovery by Galvani and Volta, gave a new powerful tool in the form of battery to the atomic scientists. This proved to be extremely useful towards understanding further the nature of the atoms and accordingly in the two following sections we describe important results dealing with the electrical nature of the atom.

Passage of electricity through liquids: The electrical nature of the atom was demonstrated in the 1830s by Michael Faraday from a series of experiments by passing an electric current through various solutions; examples: silver nitrate ($AgNO_3$), nitric acid (HNO_3) or copper sulphate ($CuSO_4$) in water. If we place two electrodes in a container with pure water and connect a battery across the electrodes, practically no current will flow through it. When a little amount of some ionisable substance like silver nitrate is dissolved in it, $AgNO_3$ breaks into ions: Ag^+ and NO_3^- . When the battery is connected to the electrodes, the positive Ag^+ ions move to the negative electrode and pick up negative charge to become neutral atoms of silver, which get deposited as a coating on the electrode (known as electroplating). Faraday named the process as 'electrolysis', and the liquid solution as 'electrolyte'. He found that the amount of material deposited on the electrodes is proportional to the total amount of electric charge which passed through the solution. This means that the charged ions that carry electricity through the solution have a well-defined charge. This is known as the first law of electrolysis. It was given by Faraday in 1833.

In another experiment, three electrolyte cells were connected in series containing $AgNO_3$, $CuSO_4$ and $AlCl_3$ (aluminium chloride) solutions respectively; the connection in series ensures that the same amount of electricity will pass through all the three

cells. It was found that if the amount of silver deposited was 108 gm (atomic weight of silver in gram), the amount of copper deposited was 31.7 gm (one half of the atomic weight of Cu) and the amount of aluminium was only 9 gm (one-third the atomic weight of aluminium). From this it was concluded that copper ions carry twice the electric charge (Cu^{++}) carried by silver ions (Ag^+) and the aluminium ions three times (Al^{+++}) as much.⁵ The atoms are thus categorised according to the electric charge carried by its ions, what the chemists call valence; examples: hydrogen and silver with a valence of 1 (monovalent), copper with a valence of 2 (divalent), while aluminium has a valence of 3 (trivalent) and so on. The atomic weight divided by the valence is defined as the equivalent weight. The above observations can now be summarised as follows: when the same amount of electric charge passes through different electrolytic cells, the amounts of substances deposited are directly proportional to their equivalent weights — this is the second law of electrolysis given by Faraday. These experiments implied the existence of electricity in multiples of some fundamental unit of electric charge, some sixty years before the discovery of the electron, the carrier of unit electric charge, as a constituent of the atom!

The next step in the study of the electric nature of matter was to identify the entity responsible for it, and this is described in the following section.

Passage of electricity through gases — discovery of electron: A gas is in general a poor conductor of electricity. However if the gas is enclosed in a glass tube embedded with two electrodes at its two ends to which a sufficiently high voltage is applied, the gas becomes luminous. If the pressure of the enclosed gas is very much reduced, the luminescence disappears almost completely. At very low pressure, however, the presence of rays is observed from the negative electrode and producing a fluorescent appearance on the opposite side of the glass tube coated with zinc sulfide. These rays are called cathode rays. These studies were being conducted since 1850s. The question whether the cathode rays are corpuscular in nature (*i.e.* particles) or waves, similar to light, engaged physicists for a long time. It was J. J. Thomson, in 1897, who proved the corpuscular nature of the cathode rays by deflecting them from their rectilinear path by external electric or magnetic fields; these deflections also established their charge to be negative. He measured the ‘charge to mass ratio’, e/m , of these particles. Thomson was able to show conclusively that these negatively charged particles, called ‘electrons’, are part of the atom, or in other words constituent of the atom. The electrons are nearly 1840 times lighter than the lightest atom — hydrogen. The atom is therefore not indivisible as thought earlier.

Scattering experiments — discovery of the nucleus: With the discovery of the electron in 1897 as a constituent of the atom, it became clear for the first time that the atom has a structure, and a big chunk of the atomic mass is of positive charge in

nature. The best way to investigate the atomic structure is to shoot an energetic beam of particles through matter and detect the scattered beam. The first such attempt was made by Lenard (1903) who used recently- discovered electrons to pass through matter. Lenard did not observe any detectable deflection of electrons and concluded that atoms are almost perfectly transparent to electrons.

It was natural for Rutherford, who was intensely occupied for nearly a decade in investigating the nature of radiations from radioactive substances, identified to be alpha, beta and gamma,⁶ immediately following the discovery of radioactivity by Becquerel (1896), to use alpha particles as projectiles for scattering experiments. Besides, the alphas are much more massive (nearly 7300 times) than the electrons in the atom, also about four times as heavy as the hydrogen atom with a positive charge (+2e) and are therefore not deflected by electrons; they are suitable for making collisions with heavier particles inside the atom. Geiger and Marsden were the two young researchers associated with Rutherford in these experiments; they were actually carrying out the experiments.

As a source of alpha particles, Rutherford used radioactive substance radium (Ra). The arrangement was quite simple. The radioactive substance was kept before a pinhole, so that a reasonably well-directed alpha beam emerged out of the pinhole diaphragm. The alpha beam then passed through a thin gold foil. A fluorescent screen was placed behind the foil. Each alpha particle hitting the screen produced a little spark (scintillation) on the screen which was counted with the aid of a microscope. Through these measurements one could count the number of particles scattered at different angles. Geiger through his note in 1908 on alpha particle scattering concluded that the majority of the alpha particles passed through the foil without any deflection and some were deflected through quite an appreciable angle. Marsden recalled⁷ what happened in 1909 when Rutherford stepped into Geiger's room: "One day Rutherford came into the room where we were counting . . . alpha particles . . . turned to me and said: 'See if you can get some effect of alpha particles directly reflected from a metal surface.' I do not think he expected any such result, but it was one of those 'hunches' that perhaps some effect might be observed . . . To my surprise, I was able to observe the effect looked for . . . I remember well reporting the result to Rutherford a week after, when I met him on the steps leading to his private room." These results were published by Geiger and Marsden in May 1909. The startling conclusion was that about 1 out of 8000 alpha particles got scattered by more than 90° , *i.e.* recoiled back like rubber balls from a wall (termed 'back scattering').

In one of his lectures Rutherford described his instantaneous reaction on hearing the 'back scattering' result.⁸ "It was quite the most incredible event that has ever happened to me in my life. It was almost as if you fired a 15-inch shell at a piece of tissue paper and it came back and hit you."

Why was Rutherford so astonished with the 'back scattering' result? According

to the popular atomic model then prevalent, Thomson's model, the density of matter inside an atom was expected to be uniform throughout the volume of the atom consisting of a bunch of tiny electrons embedded like plums in a pudding of positive charge. As the speed of the alpha particles hitting the thin gold foil was incredibly fast, nearly 10,000 km/second, it was out of question for a heavy particle like alpha to bounce back like a rubber ball! There was only one explanation and it is that the density of matter inside an atom is not uniform rather there are some dense hard spots inside.

It took nearly two years for Rutherford to unfold the mystery, and on December 14, 1910, he wrote to his friend Boltwood regarding the alpha scattering experiment:⁹ "I think I can devise an atom much superior to J. J.'s (J. J. Thomson, discoverer of the electron), for the explanation of and stoppage of alpha and beta particles, and at the same time I think it will fit in extraordinarily well with the experimental numbers." Let us quote Geiger's recollections of that time, end 1910 or beginning of 1911: "One day [Rutherford] came into my room, obviously in the best of moods, and told me that now he knew what the atom looked like and what the strong scattering signified."¹⁰

Rutherford published his famous paper 'The scattering of alpha and beta particles by Matter and the Structure of the Atom' in the May, 1911, issue of the *Philosophical Magazine*, a physics journal. Here, for the first time, the scattering picture became clear through his celebrated formula. According to Rutherford's formula, the number of alpha particles which get deflected by an angle θ from the original direction of motion is inversely proportional to the fourth power of $\sin(\theta/2)$. An entirely new picture of the atom emerged: the mass of the atom is concentrated in a tiny but positively charged central core, which Rutherford called 'atomic nucleus'. Its diameter is only 1/100,000 of that of an atom; atoms themselves are very tiny in size, so small that it would take one hundred million atoms to make a line of one centimetre long. This means there is a vast empty space between the electrons and the nucleus inside an atom. To visualise the gap, one may imagine an inflated size of the nucleus as that of a cricket ball of about 7 centimetres, then the electrons will mostly be at a distance of about 7 kilometres with nothing in between. Thus our atom consists of negatively charged electrons and a positively charged nucleus.

The scattering experiments were pursued by several researchers, in particular using elements like lithium, beryllium, boron and other light elements as targets. The following conclusions were drawn: (i) The hydrogen nucleus was one of the fundamental building blocks of all other nuclei and it was given a special name: the 'proton' (from the Greek word 'protos', meaning first). (ii) All the other elements were composed of protons plus 'neutrons'. The latter was identified to be a neutral particle by Chadwick, in 1932, as a partner to the positively charged proton in the nucleus. The mass of the neutron is close to that of the proton; it is nearly 1840 times heavier than the electron. Thus the picture of an atom is that of a positively

charged nucleus at the centre, consisting of protons and neutrons, surrounded by negatively charged electrons moving round the nucleus. The atom as a whole is a neutral object. The motion of electrons inside an atom is very complex and is described appropriately by the relativistic quantum mechanics. Some examples of atoms are: hydrogen atom with 1 proton and 1 electron; helium atom with 2 protons, 2 neutrons and 2 electrons; oxygen atom with 8 protons, 8 neutrons and 8 electrons, and so on.

The electron, proton and neutron are only the first batch of subatomic particles. By the 1960s, the number of subatomic particles had increased manifold, *e.g.* muons, pions, kaons, lambdas and other short-lived particles. With the construction of very high energy particle accelerators, it became possible to probe deep into protons and neutrons. These experiments, carried out in the 1960s and 1970s, revealed their inner structure; the constituents are named 'quarks'. These quarks are six in number. Like the quarks, our electron is also a part of a bigger family of six particles called 'leptons'. The quarks and leptons are now considered to be the building blocks of matter with four basic forces controlling them (for more details, see *Mother India*, February 2005, p. 203). With this we end our story of the nucleus, but the exploration of matter continues.

Let us close this article with a short note¹¹ of Max Born, 1954 Nobel Laureate, in appreciation of Rutherford's contribution to physics: "The title of father of the atomic theory is given to Rutherford, who took up the research with more adequate instrumental resources and carried it further; to him we owe our concrete, quantitative ideas on atomic structure."

S. N. GANGULI

References and Notes

1. Some of the heavy elements, like uranium or radium, are unstable (radioactive). They emit three kinds of radiations: alpha (α), beta (β) and gamma (γ). The alphas are nuclei of helium atom with charge as $+2e$ and with four times the mass of a hydrogen atom. The beta ray is another name for the electron. The gamma rays are light, of very short wave-length (also called photons).
2. The principle of inertia: If an object is moving along at a certain speed in a straight line, and if no force (not even friction) is acting on it, then the object will continue to move at the same speed along the same straight line.
3. The law of gravitation: It states that there is an attractive force between two bodies, like sun and earth, which varies inversely as the square of the distance between them, and it is directly proportional to the product of their masses — doubling the distance reduces the force to one-fourth; the heavier the masses, the stronger the attractive force.
4. The molecules are formed by joining together of atoms. Examples: an oxygen molecule, O_2 , has two atoms of oxygen; a water molecule, H_2O , has two atoms of hydrogen and one atom of oxygen.

5. (a) The silver ion (Ag^+) needs to pick up one electron to become a neutral atom, while a copper ion (Cu^{++}) needs two electrons and aluminium ion (Al^{+++}) needs three electrons to become neutral atoms. Thus, for the same charge that passes through all the three cells, the number of copper and aluminium atoms collected at the electrodes will respectively be half and one-third of the silver ones. (b) If the cells run until 108 gm of silver has been collected (atomic weight of Ag in grams), then the mass of the same number of atoms would be 63.5 gm for copper (its atomic weight in gm), and that for the aluminium would be 27 gm (its atomic weight in gm). But since the collection of Cu atoms is only half that of the Ag ones, the mass of Cu collected would be $63.5/2 \sim 31.7$ gm; similarly the mass of Al atoms collected would be only $27/3 = 9$ gm.

6. See 1 above.

7. Abraham Pais, *Inward Bound — Of matter and forces in the physical world*, Clarendon Press/Oxford Univ. Press (1988), pp. 188-190.

8. *Ibid.*

9. *Ibid.*

10. *Ibid.*

11. Max Born: *Atomic Physics*, Dover publications, p. 62.

Materialism has now become a philosophical speculation just like any other theory; it cannot claim to found itself on a sort of infallible Biblical authority, based on the facts and conclusions of Science. This change can be felt by one like myself who grew up in the heyday of absolute rule of scientific materialism in the 19th century. The way which had been almost entirely barred, except by rebellion, now lies wide open to spiritual truths, spiritual ideas, spiritual experiences. That is the real revolution. Mentalism is only a half-way house, but mentalism and vitalism are now perfectly possible as hypotheses based on the facts of existence, scientific facts as well as any others. The facts of Science do not compel anyone to take any particular philosophical direction. They are now neutral and can even be used on one side or another though most scientists do not consider such a use as admissible. Nobody here ever said that the new discoveries of Physics supported the ideas of religion or churches; they merely contended that Science had lost its old materialistic dogmatism and moved away by a revolutionary change from its old moorings.

Sri Aurobindo

(*Letters on Yoga*, SABCL, Vol. 22, pp. 206-07)

THE LUMINOUS PAST

(Continued from the issue of October 2011)

WITH the Mother's permission, once in a while Bharati-di used to travel to the mountain regions of India, and sometimes to other countries too. Once she went to Japan and came back with a lot of things. She worked very hard to put up an exhibition in the hall of the first floor of our Ashram Dining Room. Jayantilal, the Ashram artist, helped her a great deal in arranging this exhibition. I too helped her in this work. The whole exhibition was divided into two parts: modern Japan and ancient Japan. There is almost nothing in common between the two. One was the Japan before the Second World War and the other was the post-war American-influenced Japan. On the day of the inauguration, the Mother came at the appointed time to open the exhibition. After lighting some incense-sticks and arranging some flowers we were sitting next to the photos of the Mother and Sri Aurobindo, when suddenly Bharati-di stood up with a start. I turned around and saw the Mother's clear and radiant eyes. Bharati-di, with mock-seriousness said, "Pavitra did not even warn us with the sound of the horn. I had planned to run down and fetch you. But he denied me that opportunity." The Mother said softly, "I had forbidden him. Look, I too have worn a Japanese kimono just like you." Both of them had a good laugh. The Mother's granddaughter, Janine, was standing near the door. The Mother introduced her to Bharati-di. Bharati-di embraced her and led her into the exhibition room with the Mother. Pavitra-da followed them.

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Now it was time to see the exhibition. In the section on ancient Japan, there were pictures of Buddhist temples, Nature and various landscapes. The Mother said with a smile to Bharati-di, "You have brought back memories of my past. This is the temple where I used to sit and meditate deep into the night. The trees too are just as they were then. I used to lean on their trunks and enjoy the beauty of the landscape which was nearby as well as what I could see in the distance. I used to take a walk down that road everyday. You have not left anything out. Now let's go and see modern Japan." The Mother was saddened as she looked at it. "It's all very garish. There is no beauty. This Japan is bereft of all good taste." The Mother did not look at this section for very long. She went back to look at the Japan where she had meditated. This brought a smile to her face. She looked at the pictures again and again, and told Bharati-di to keep carefully those pictures which she had liked. She asked her to give some of them to Medhananda at the Library and the rest to the

School. The Mother took Bharati-di's right hand in hers and said, "What a beautiful exhibition! You must keep it open in the morning as well as in the evening."

*

The next day Bharati-di was unwell and so I had to open the exhibition hall. A lot of people came. If anyone did not understand something I would go ahead and explain it like an expert, without letting them know that I was quite ignorant myself. A couple of days later when I went to see Bharati-di, in order to encourage me she praised me so much for my skills that she almost gave me a certificate. She had jotted down, in her own words, all that some learned people who had seen the exhibition had told her. She gave this to me. One day a well known poet-writer of the Ashram was looking attentively at a picture about which I knew nothing. He called me and asked me to explain what the picture was all about. He knew the extent of my knowledge. So, he called me in order to check how much I knew. I said very truthfully that the pictures on that side were supposed to be shown by Bharati-di and that is why I had not had the opportunity to know more about them. He told me very quietly, "Shall I explain it to you?" I said, "Yes, please. I will be grateful." He explained everything to me. The exhibition closed after eighteen days. Bharati-di chose a present for each one of us. The first one was for the Mother. On it she wrote, "A present from the exhibition at the Mother's feet." She gave Jayantilal the picture that he liked best. I received a beautiful Japanese bag woven in cane. Till today I use it to keep money. Its original Japanese colours still shine brightly.

*

Bharati-di once went to spend some time in the Kulu valley. She wrote a letter from there saying, "Here the mountains are as pretty as in pictures. I have taken many photos. The villagers and their simple and straightforward ways have charmed me. I have received an invitation from Pratima Devi, the daughter-in-law of Rabindranath, to go and see her in Kalimpong. I will go and stay in her beautifully decorated house there." She went as a guest of Pratima Tagore to Kalimpong. She came back from there exactly a month later with many beautiful photos and presents for the people she loved. She sent word asking me to go and see her as soon as I could. I went the next morning. As soon as she saw me she asked me whether there had been any mistake in the letter she had sent me. Before I could answer she told me that Pratima Devi wanted to know whether there was anybody of her name in the Ashram. This was because in the address it was marked "Pratima" followed by the Ashram address. I told Bharati-di that indeed she had once written that name. She asked me whether that letter was given to me. I answered that when I saw her handwriting I understood that it was for me.¹ Bharati-di said, "This error did not

happen because of my age. The fact is I love both of you. So sometimes I call one by the other's name. It even happens in writing."

This is what had actually happened. While Bharati-di was staying with Pratima Devi, on a letter written to me she had mistakenly written 'Pratima' on the address. When Pratima Devi gave this letter, addressed to the Sri Aurobindo Ashram, for posting, with the name "Pratima" written on it, she wondered whether there was another Pratima known to Bharati-di who was living in the Sri Aurobindo Ashram. This is why she had later asked this question.

When this letter came to the Ashram Post Office, seeing Bharati-di's handwriting I understood that it was for me. I opened it to be sure and explained the matter to the person in charge and after that there was no difficulty for me to take it.

*

Now I will narrate in brief a story I heard from Bharati-di. During the First World War she was a young woman [in France]. She had to participate in the war efforts. Her father was a soldier. He gave her the work of taking the dead and the wounded by lorry to her mother's office. As soon as she reached the office, Bharati-di used to blow the horn and a very well-built black servant called Momari used to empty the lorry. This servant had been employed by her parents from the time when Bharati-di was a child. It was he who used to look after her. This black man had taught her to call him "Mon mari". Little Suzanne started calling him "Mon mari". However hard they tried, her parents could not make Suzanne change the way she called him. They asked the black man why he had done such a thing. He gave a big smile and then answered, "You call me 'Negro'. You cannot pronounce my real name. Suzanne is a child and when she calls me 'Negro', I feel hurt. That is why I have taught her to call me 'Mon mari'." 'Mon mari' means 'my husband' in French. Suzanne's parents had a little discussion and decided to slightly modify the name. They told the servant, "From today your name is 'Momari'. We too will call you by this name." The word 'momari' doesn't mean anything. This servant of theirs served the entire family with all his heart, till the end of his life.

*

Bharati-di once invited me and my pupils (I had just started taking classes for little children) to the Cottage Restaurant. What was special about this outing was that André-da was also invited by Bharati-di to this meal. All the invitees were present. It was a lavish meal. Each one chose whatever he or she wanted to eat. The pupils

1. Translator's note: Pramila Devi had a sister who was called Pratima and hence the confusion. At the Ashram Post Office, the letters which arrive are displayed on a board and people are given their letters when they go there.

and the adults together made quite a big group. We ate very well. Bharati-di and André-da ordered a small quantity of something, but they were engrossed in their conversation. Suddenly Bharati-di looked at her watch and told André-da, “The Mother is waiting for you. Perhaps you should leave now.” André-da replied, “The Mother asked me to be present here before you and to wait for you, and to leave after you when the meal was over. If I don’t follow her instructions, she will scold me.” As soon as we heard this we got up. Bharati-di paid the bill and, accompanied by André-da, she went out with a smile. We too headed towards our homes.

*

I have already said that not only did Bharati-di narrate interesting stories herself but she also had a knack of getting stories out of us. I often confided in her many of my private anecdotes. This is the story I once told her. Once, the Mother was going to give us “Victory saris” for the *darshan*. Many conflicting reports were coming out in the newspapers. One day it would be reported that the Allies were about to win, the next day the reports would say that Germany was winning. We were in a dilemma. The Mother did give us the “Victory sari”. If there was no victory before the *darshan*, what would happen? I started praying, “Lord, don’t let the Mother lose face. Please help the Mother.” Secretly, I bowed down before the photo of Sri Aurobindo and prayed, “Save the Mother’s honour.” After that I bowed before all the Hindu gods and goddesses and said, “This Mother is all we have. Please crown her with victory.” The Mother, on the other hand, was unmoved like the Himalayas and ever-smiling. The Sunday before the *darshan* she distributed the saris with a smile on her face and blessed us. But my worries only grew. The *darshan* was now very close. O God, there is no time, whatever you have to do, do it now. Then, suddenly, as I was sitting on the terrace, I heard the announcement over the radio — “Germany is defeated, the Allies have won.”

As I finished my story, Bharati-di kept quiet for a while and then said, “You love the Mother. Never think that you have lost faith in the Mother’s force. We often have this sort of anxiety concerning the people we love. So don’t be ashamed about it.”

PRAMILA DEVI

(Translated by Sunayana Panda from the original Bengali *Ujjwal Ateet*.)

THE KRISHNA WORLD

(Continued from the issue of October 2011)

6. Smashing a Cart to Smithereens

IF Krishna was a little baby when he killed the giantess Putana, how old was he when he performed the other feats of strength? He is said to have killed another giant, Shakatasura, literally, the Cart-demon. We have no idea whether the original giant had come in the guise of a cart. Perhaps it was a name given to him for being an excellent cart-driver. Was he a killer-driver who was described as asuric when holding the reins? Some such beginnings must have led to this minion of Kamsa being named a Cart-demon who had been commanded to kill baby Krishna. Such speculations are a million and more when we enter the Krishna world. That is what makes him so fascinating a subject!

So Krishna gave a kick to the cart that tried to roll over him murderously? One kick and the cart was blown to smithereens! Is this possible? Strange as it may sound, whenever I think of this episode, a poem of Oliver Wendell Holmes (1809-94) flashes across my inward eye. In the world of Krishna, terror and laughter always hold hands! *The Autocrat of the Breakfast Table* by Holmes has been a close companion for decades and has cleared clouds of depression from my brows in a moment. The dog-eared paperback contains essays mostly; but some of the poems Holmes has written for the collection have become classics. ‘The Deacon’s Masterpiece’ is one of them. Lovers of Krishna’s smashing up the cart would best appreciate this “wonderful one-horse shay”:

Have you heard of the wonderful one-hoss-shay,
That was built in such a logical way
It ran a hundred years to a day,
And then, of a sudden, it — ah, but stay
I’ll tell you what happened without delay,
Scaring the parson into fits,
Frightening people out of their wits, —
Have you ever heard of that, I say?

Holmes assures us that when building a chaise, there is always a weak spot somewhere, maybe in the hub or crossbar or sill. But our deacon would not buy this superstition. So he built one of oak in 1755 to last one hundred years. The deacon and the deaconess passed away and so did their children and grandchildren

but the one-hoss-shay remained as strong as ever. At last came 1st November, 1855 which was the birth centenary of the carriage. Interestingly enough, none of the parts of the carriage had suffered any decay and it was as strong as new. Well, as strong as our Shakatasura.

For the wheels were just as strong as the thills,
 And the floor was just as strong as the sills,
 And the panels just as strong as the floor,
 And the whippletree neither less nor more,
 And the back-crossbar as strong as the fore,
 And spring and axle and hub . . .

The ageing parson who possessed the carriage in 1855 took it out on that day as usual. He was on his way to the church and was practising his Sunday sermon. Imagine his shock when the one-hoss-shay began acting funny and the parson found himself flung upon a rock.

What do you think the parson found,
 When he got up and stared around?
 The poor old chaise in a heap or mound,
 As if it had been to the mill and ground!
 You see, of course, if you're not a dunce,
 How it went to pieces all at once,—
 All at once, and nothing first,—
 Just as bubbles do when they burst.
 End of the wonderful one-hoss-shay.
 Logic is logic. That's all I say.

Now I know why I am wary of reason and logic when I take up Krishna. If you want pure Ananda, you have to go beyond the mental regions. In the Overmind plane, we can laugh unashamedly when the old parson leads the horse away as the carriage itself lies in ruins. Then I know why fear does not grip me when I take up the Shakatasura episode. A little baby kick a cart to pieces? But why not? He is our Krishna, isn't he? He must have known the weak spot in the thill or sill or axle or hub.

The scene of little Krishna's cradle swinging under a cart was a familiar enough sight in my childhood. Three scores of years ago, in our village that did not even have electricity, farmhands working in the fields used to make their carts act as a temporary shelter from the hot sun for their babies. Women also worked in the fields: they were known for their finesse in replanting paddy seedlings and the little babies slept in the cozy hammocks that swung from the carts. Healthy babies too,

growing up “in sun and shower”.

Interestingly enough, the destruction of the Cart-demon seems to have been Krishna’s first miraculous act, if one goes by the earliest account found in *Harivamsam* which is considered as the ‘khila’ of the *Mahabharata*. It is in this work that Krishna’s childhood, boyhood and youth find recordation for the first time. Sankarshana (Balarama) and Krishna were comely babies. There is an absolute rural realism in the account:

One day Krishna had gone to sleep, lying under a cart. Seeing him fast asleep, Yashoda went to the Yamuna for her bath. Presently, Krishna woke up, flung his feet upwards and began to cry sweetly. Seeking to drink milk from his mother (*payodharākāṅkṣi*), he kicked the cart and cried. Frightened, Yashoda hurried back from her bath. Milk was flowing from her breasts, wetting all her limbs. She was like the cow hurrying to its calf tethered in the shed. She found that the cart had been upset though there had been no strong winds. Lamenting ‘ha, ha’, she lifted up Krishna and put him on her lap. She did not know the reason for the upturned cart. Full of fear and love, she called upon the Supreme to guard her baby: “Child! Your father gets very angry easily. You were sleeping under the cart and it was upturned. When he hears of it, he will pull me up badly. What would I get by going to the river and the bath? If something had happened to you, it would have become a sad bath indeed.”¹

Presently Nanda returned home with the cows. From a distance he could see the cart smashed to pieces. The vessels, pots and the rest were broken and strewn all over the place. The upturned cart appeared with its wheel above it as if it were a crown! Startled, he hurried home. His eyes were wet. He repeatedly asked whether the child was safe. Only when he saw the baby suckling on the lap of its mother did he calm down. Then he asked Yashoda: “Hope the bullocks did not get violent. How was the cart broken?” Yashoda replied in a trembling voice (*gadgadabhāṣiṇīm*): “I have no idea who broke the cart. I had gone to the river to wash clothes. On my return I found the cart upturned and resting on the earth.”

As they conversed thus, some cowherd boys came to them. “Your son kicked the cart and broke it. We were coming this way and chanced to see (*dṛṣṭametad yadruchchayā*) it happen.” Nanda was overcome by wonderment. He was happy but at the same time a fear gripped his heart. How could this be? In any case the elders among the cowherds did not believe it, for they thought of Krishna as an ordinary child. At the same time, they did marvel at the cart that lay shattered. Soon they began the work of repair, set the cart straight and proceeded to attach the wheels to it.

1. ‘Vishnu Parva’, Ch. Vi, verses 4-11. Translated by Prema Nandakumar.

When we take up Krishna's childhood again in *Vishnu Purana*, the story is told briefly with none of the drama of Yashoda's soliloquy. Probably the author did not want to indulge in a detailed replay of a babe destroying a huge, undetected power, as in the Putana episode. But Indian mythos has glorious wings of imagination. The cart is now seen as a Cart-demon. By the time we come down to the *Bhagavata*, the realism of *Harivamsam* has been left far, far behind. I do not complain, for in a world of dull repetition and moral turpitude, the legends of lovely Krishna gleam as lightnings and the miraculous is seen as a common occurrence in our lives. This is the real truth, says my psyche, defying all the calculations of a humdrum life:

A heart stood in the way of the driving wheels:
Its giant workings paused in front of a mind,
Its stark conventions met the flame of a soul.
A magic leverage suddenly is caught
That moves the veiled Ineffable's timeless will:
A prayer, a master act, a king idea
Can link man's strength to a transcendent Force.
Then miracle is made the common rule,
One mighty deed can change the course of things;
A lonely thought becomes omnipotent.²

To borrow from Sri Aurobindo again, enough of this "endless servitude to material rule"! Brought up gazing to my fill at those lovely visuals of the *Kalyana Kalpataru* magazine during my childhood and meditating today upon the life of Krishna in its *Bhagavata*-minutiae through the artists of the International Society for Krishna Consciousness, I know that at some time or other of my life I have to step aside from the mind for a while and lose myself in the fantastic realism of the *Bhagavata*. The work votes for an exact date. Krishna was exactly three months old and Yashoda bathed him formally to the accompaniment of Vedic mantras. The baby was dressed nicely in silks. The bejewelled Krishna was put under a cart to sleep. Since Yashoda was busy feeding the guests who had come to the ceremony, she did not hear the urgent cries of Krishna for milk. Suddenly everyone was stunned by a strange scene.

It was now noticed that under the kick of the petal-soft tiny legs of the infant lying underneath it, the cart had fallen down topsy-turvy, with its wheels, axle and other parts broken, and the several vessels with milk, curd, ghee and other liquids gathered there for the birthday function and kept in it upset.³

2. *Savitri*, CWSA, Vol. 33, p. 20.

3. Skandha X, Chapter 7, verse 7. Translated by Swami Tapasyananda.

Nanda invoked the blessings of the assembled Brahmins and all was well. In the *Bhagavata* literature that is oceanic, soulful and loved by the common man as well as the scholar, we have the Tamil version of Arulaladasar (16th century), which he calls *Vasudevan Kathai* (also known as *Purana Bhagavatam*) which gives several homely touches that are very enjoyable. The baby is bathed for its birthday. And then:

A jewel a-gleam on his forehead; the namam⁴
 Drawn lovingly; on the feet of the Lord
 With the complexion of the blue sea,
 The anklet; bracelets on hand.
 Garland woven with fresh blossoms;
 And the cradle encrusted with gold and pearls
 Was readied too; the son of the emperor,
 Kamsa, sorrowed when he heard
 That Putana was no more. He called
 Shakatasura who could assume various forms,
 One who had achieved dire tasks,
 And asked him to bring to an end
 His enemy's dynasty. The evil fellow
 Hurried to Nanda's home.⁵

Arulaladasar's Cart-demon stealthily entered Nanda's home and became a cart-and-cradle ensemble. The guileless cowherdresses who were beautiful like the arrows of Cupid placed the baby Krishna into this lovely cradle, singing songs of auspiciousness. As the various musical instruments played, the gods appeared in the skies and poured a rain of flowers, a familiar conceit in our poetry. A sumptuous feast followed. The guests went back to their homes. Nanda, Yashoda and Rohini went to a neighbouring house to rest while Krishna "appeared to be sleeping". A few cowherd boys were playing around. The rest of the story follows.

What is interesting is that a commentator on this *Bhagavata* version by Arulaladasar, citing the *Brahmavaivarta Purana*, adds that the Shakatasura who was kicked by Krishna to death was the son of Hiranyaksha, the brother of Hiranyakashipu. Hiranyaksha had a son named Udghacha. He loved to destroy good things. Once he was wandering when he came across the hermitage of Rishi Lomasha. The Ashram was surrounded by huge trees. As he began cutting down the trees, the rishi was incensed and cursed him: "May you be bodiless!" Immediately his body fell down like the skin shed by a snake. Well, cutting down a tree has always been

4. Streaks of white and red tilak painted on the forehead of Vaishnavas.

5. Canto 26. Translated by Prema Nandakumar.

considered a sin by the environmentally-conscious ancient Indian. Udhgacha fell at the feet of the sage and sought forgiveness. Lomasha assured him that in the Vaivaswata Manvantara, the touch of Krishna's feet will give him moksha. Udhgacha had now come as the Cart-demon.

Apparently the delineation of the childhood of Krishna needed more instances of the baby-power. So we get an account of the destruction of the Trinavarta demon. That was the Whirlwind demon who carried away Krishna, but the baby held on to the neck of his kidnapper and quashed him. Both of them fell on the earth. The demon was demolished.

As with Shakatasura, the *Brahmavaivarta Purana* goes back to an earlier birth of the demon Trinavarta. As the King Sahasraksha of Pandu country, he had been bathing in the Narmada with his wives and did not notice the coming of Rishi Durvasa. Now, just as Narada is ever equated with music in our tradition, so Durvasa is associated with fierce anger. Durvasa was incensed by the behaviour of the king and cursed him to become a demon. On the king's begging for pardon, the rishi said he would be freed from the curse and gain moksha when Krishna's foot touched him in the Dwapara Yuga.

Krishna-lovers cannot have enough of the baby Krishna's tiny feet. The lovable limbs perform such miracles and yet are so tender! The Telugu author, Bammara Pothana (15th century) says that the baby, crying for mother's milk, kicked a cart that was near him with his foot that was tender as a fresh shoot, and was decorated with marks of the discus and fish (*kisalaya vilasanmrudu cakra chāpa rekha*). While the cowherds debate whether a baby could have smashed the huge cart with a kick, Yashoda sings a musical lullaby:

You are tired, aren't you?
 You are frightened, perhaps!
 My good little one! Stop crying!
 Drink milk, my darling! Be happy!
 So she crooned and suckled the child.

It is amazing how the Indian imagination repeatedly brings the legend of Krishna to the domestic track. Immersed in such literature, religion and spirituality were absorbed by the Indian in a very natural manner. The Oriya devotion to the *Bhagavata* is legendary. The Aurobindonian Chandrasekara Rath's Oriya novel *Yantrarudha* (English version: *Astride the Wheel*) brings out this involvement beautifully. The *Pātachitra* paintings of Orissa, guileless in their simple lines, give us a lesson in approaching our tradition directly. I have a *Pātachitra* painting of the Shakatasura episode before me. Here is an artless representation of a cart with two wheels. The cart is crowned with a demon's head pulled by Krishna. Krishna looks like a young man though. The villagers who are used to listening to *Bhagavata*-

pāth (reading of the Purana) recognise the Divine and the Demon in the right perspective. The message gets conveyed in a trice with a tree in the background. It is some satisfaction to the psyche that the Divine looks like a familiar hero and not a babe in the cradle. Once again, the realism of it would give the onlooker plenty of self-confidence. I have often wondered how my grandmother never seemed frightened of the looming darkness in the village street and backyard. But she had that firm faith in the Supreme as a guardian power. Generations of Krishna-bhakti had sent the stream of self-confidence to flow through their veins. Why fear any devil, ghost or demon? Just think of the little Krishna's lovely feet in Bilwamangal's *Krishna Leela Tarangini*! *Nikhila bhuvana lakshmi nitya lilāspadabhyām*:

Krishna's feet on the stage for the play
 Eternal of all the beauty in creation;
 They rival the pride of lotuses in bloom
 That are found a-plenty in serried formation;
 The highest power of unequalled nobility
 In giving refuge who take refuge in them;
 May my consciousness remain ever in joy
 At the lotus-feet of Krishna.⁶

(To be continued)

PREMA NANDAKUMAR

6. Aswasa One, Verse 12. Translated by Prema Nandakumar.

The forces of the Ignorance are a perversion of the earth-nature and the adverse Powers make use of them. They do not give up their control of men without a struggle.

Sri Aurobindo

(Letters on Yoga, SABCL, Vol. 24, p. 1734)