ance thus began, it proved to be a lasting friendship. Our first day's march was to Meissen, where we halted. We had enjoyed lovely spring weather during our march, and our repose was gladdened by a still lovelier evening. I found all the university students of the corps, driven by a like impulse, collected together in an open place by the shores of Elbe and near a public restaurant; and some old Meissen wine soon served us as a bond of union. We sat about twenty strong in a jolly group at a long table, and began by welcoming and pledging one another to friendship. It was here that Langethal introduced me to a university friend of his at Berlin, the young Middendorff, a divinity student from the Mark.* Keeping together in a merry little society till the middle of the lovely spring night, we united again next morning in a visit to the splendid cathedral of Meissen. Thus from the very first did we three join fast in a common struggle towards and on behalf of the higher life, and even if we have not always remained in the like close outward bonds of union, we have from that time to this, now near upon fifteen years, never lost our comradeship in the inner life and our common endeavour after self-education. Both Langethal and Middendorff had a third friend, named Bauer, amongst our comrades of the camp. With him also, as I think, I made acquaintance as early as at Meissen, but it was more particularly at Havelberg, later on, that Bauer and I struck up a friendship together, which has ever since endured. Even when we have not been together in outward life, we have always remained one in our endeavours after the highest and best.

* *Die Grafschaft Mark.* The Mark of Brandenburg (so called as being the mark or frontier against Slavic heathendom in that direction during the dark ages) is the kernel of the Prussian monarchy. It was in the character of Markgraf of Brandenburg, that the Hohenzollern princes were electors of the German Empire; their title as king was due not to Brandenburg, but to the dukedom of Prussia in the far east (once the territory of the Teutonic military order), which was elevated to the rank of an independent kingdom in 1701. The title of the present Emperor of Germany still begins "William, Emperor of Germany, King of Prussia, Markgraf of Brandenburg," etc., etc., showing the importance attached to this most ancient dignity. The Mark of Brandenburg contains Berlin. Middendorff seems to have been then living in the Mark. Froebel cannot have forgotten that by origin Wilhelm Middendorff was a Westphalian.

Bauer closed the narrow circle of my friends amongst our companions in arms.*

I remained true to my previous way of life and thought in the manner in which I viewed my new soldier life. My main care was always to educate myself for the actual calling which at the moment I was following; thus, amongst the first things I took in hand was an attempt at finding the inner necessity and connection of the various parts of the drill and the military services, in which, without any previous acquaintance with military affairs, I managed, in consequence of my mathematical and physical knowledge, to succeed very fairly and without any great difficulty. I was able to protect myself, therefore, against many small reprimands, which fell tolerably frequently on those who had thought this or that instruction might be lightly passed over as too trivial to be attended to. It came about in this way, when we were continually drilling, after the cessation of the armistice, that the military exercises we performed gave me genuine pleasure on account of their regularity, their clearness, and the precision of their execution. In probing into their nature I could see freedom beneath their recognised necessity.

During the long sojourn of our corps in Havelberg previously alluded to, I strengthened my inner life, so far as the military service permitted, by spending all the time I could in the open

* Of Bauer little further is to be known. He was afterwards professor in the Frederick-William Gymnasium (Grammar School) in Berlin, but has no further connection with Froebel's career. On the other hand, a few words on Langethal and Middendorff seem necessary here. Heinrich Langethal was born in Erfurt, September 3rd, 1792. He joined Froebel at Keilhau in 1817. He was a faithful colleague of Froebel's there, and at Willisau and Burgdorf, but finally left him at the last place, and undertook the management of a girls' school at Bern. He afterwards became a minister in Schleusingen, returning eventually to Keilhau. One of the present writers saw him there in 1871. He was then quite blind, but happy and vigorous, though in his eightieth year. He died in 1883. Wilhelm Middendorff, the closest and truest friend Froebel ever had, without whom, indeed, he could not exist, because each formed the complement of the other's nature, was born at Brechten, near Dortmund, in Westphalia, September 20th, 1793, and died at Keilhau November 27th, 1853, a little over a year after his great master. (Froebel had passed away at Marienthal July 21st, 1852.)

air, in communion with Nature, to a perception of whose loveliness a perusal of G. Forster's "Travels in Rhineland" had newly unlocked my senses.*

We friends took all opportunities of meeting one another. By-and-by we set to work to make this easier by three of us applying to be quartered together.

In the rough, frank life of war, men presented themselves to me under various aspects, and so became a special object of my thoughts as regards their conduct, and their active work, and most of all as to their higher vocation. Man and the education of man was the subject which occupied us long and often in our walks, and in our open-air life generally. It was particularly these discussions which drew me forcibly towards Middendorff, the youngest of us.

I liked well our life of the bivouac, because it made so much of history clear to me; and taught me, too, through our oft-continued and severely laborious marches and military manœuvres, the interchanging mutual relations of body and spirit. It showed me how little the individual man belongs to himself in war time; he is but an atom in a great whole, and as such alone must he be considered.

Through the chance of our corps being far removed from the actual seat of war, we lived our soldier life, at least I did, in a sort of dream, notwithstanding the severe exertions caused by our military manœuvres, and we heard of the war only in the same sleepy way. Now and then, at Leipzig, at Dalenburg, at Bremen,

* "Ansichten vom Nieder Rhein, Flandern, Holland, England, Frankreich in April, Mai, und Juni 1790" ("Sketches on the Lower Rhine, Flanders," etc.). Johann Georg Forster (1754—1794), the author of this book, accompanied his father, the naturalist, in Captain Cook's journey round the world. He then settled in Warrington (England) in 1767; taught languages, and translated many foreign books into English, etc. He left England in 1777, and served many princes on the Continent as librarian, historiographer, etc., amongst others the Czarina Catherine. He was librarian to the Elector of Mainz when the French Revolution broke out, and was sent as a deputation to Paris by the republicans of that town, who desired union with France. He died at Paris in 1794. His prose is considered classical in Germany, having the lightness of French and the power of English gained through his large knowledge of those literatures.

at Berlin, we seemed to wake up; but soon sank back into feeble dreaminess again. It was particularly depressing and weakening to me never to be able to grasp our position as part of the great whole of the campaign, and never to find any satisfactory explanation of the reason or the aim of our manœuvres. That was my case at least; others may have seen better and clearer than I.

I gained one clear benefit from the campaign; in the course of the actual soldier life I became enthusiastic upon the best interests of the German land and the German people; my efforts tended to become national in their scope. And in general, so far as my fatigues allowed, I kept the sense of my future position always before me; even in the little skirmishes that we had to take part in I was able to gather some experiences which I saw would be useful to me in my future work.

Our corps marched through the Mark,* and in the latter part of August through Priegnitz, Mecklenburg, the districts of Bremen and Hamburg, and Holstein, and in the last days of 1813 we reached the Rhine. The peace (May 30th, 1814) prevented us from seeing Paris, and we were stationed in the Netherlands till the breaking up of the corps. At last, in July 1814, every one who did not care to serve longer had permission to return to his home and to his former calling. Upon my entrance into a corps of Prussian soldiers I had received, through the influence of some good friends, the promise of a post under the Prussian Government—namely, that of assistant at the mineralogical museum of Berlin, under Weiss. Thither then, as the next place of my destined work, I turned my steps. I desired also to see the Rhine and the Main, and my birthplace as well; so I went by Düsseldorf back to Lünen, and thence by Mainz, Frankfurt, and Rudolstadt to Berlin.

Thus I had lived through the whole campaign according to my strength, greater or less, in a steady inner struggle towards unity and harmony of life, but what of outward significance and worth recollection had I received from the soldier's life? I left the army and the warlike career with a total feeling of discontent. My inner yearning for unity and harmony, for inward peace,

* The Mark of Brandenburg.

was so powerful that it shaped itself unconsciously into symbolical form and figure. In a ceaseless, inexplicable, anxious state of longing and unrest, I had passed through many pretty places and many gardens on my homeward way, without any of them pleasing me. In this mood I reached F——, and entered a fairly large and handsomely-stocked flower garden. I gazed at all the vigorous plants and fresh gay flowers it offered me, but no flower took my fancy. As I passed all the many varied beauties of the garden in review before my mind, it fell upon me suddenly that I missed the lily. I asked the owner of the garden if he had no lilies there, and he quietly replied, *No!* When I expressed my surprise, I was answered as quietly as before that hitherto no one had missed the lily. It was thus that I came to know what I missed and longed for. How could my inner nature have expressed itself more beautifully in words? "Thou art seeking silent peacefulness of heart, harmony of life, clear purity of soul, by the symbol of this silent, pure, simple lily." That garden, in its beautiful variety, but without a lily, appeared to me as a gay life passed through and squandered without unity and harmony. Another day I saw many lovely lilies blooming in the garden of a house in the country. Great was my joy; but, alas! they were separated from me by a hedge. Later on I solved this symbol also; and until its solution image and longing remained stored in my memory. One thing I ought to notice—namely, that in the place where I was vainly seeking for lilies in the garden a little boy of three years old came up trustfully and stood by my side.

I hastened to the scene of my new duties. How variously the different outward circumstances of my life henceforth affected me as to the life within, now that this had won for itself once more an assured individual form, and how my life again resumed its true and highest aspect, I must pass over here, since to develop these considerations with all their connections would take me too long.

In the first days of August 1814 I arrived at Berlin, and at once received my promised appointment. My duties busied me the greater part of the day amongst minerals, dumb witnesses to the silent thousand-fold creative energy of Nature, and I had

to see to their arrangement in a locked, perfectly quiet room. While engaged on this work I continually proved to be true what had long been a presentiment with me—namely, that even in these so-called lifeless stones and fragments of rock, torn from their original bed, there lay germs of transforming, developing energy and activity. Amidst the diversity of forms around me, I recognised under all kinds of various modifications one law of development.

All the points that in Göttingen I had thought I traced amidst outward circumstances, confirmatory of the order of the soul's development, came before me here also, in a hundred and again a hundred phenomena. What I had recognised in things great or noble, or in the life of man, or in the ways of God, as serving towards the development of the human race, I found I could here recognise also in the smallest of these fixed forms which Nature alone had shaped. I saw clearly, as never yet I had seen before, that the godlike is not alone in the great; for the godlike is also in the very small, it appears in all its fulness and power in the most minute dimensions. And thereafter my rocks and crystals served me as a mirror wherein I might descry mankind, and man's development and history. These things began to stir powerfully within me; and what I now vaguely perceived I was soon to view more definitely, and to be able to study with thoroughness.

Geology and crystallography not only opened up for me a higher circle of knowledge and insight, but also showed me a higher goal for my inquiry, my speculation, and my endeavour. Nature and man now seemed to me mutually to explain each other, through all their numberless various stages of development. Man, as I saw, receives from a knowledge of natural objects, even because of their immense deep-seated diversity, a foundation for, and a guidance towards, a knowledge of himself and of life, and a preparation for the manifestation of that knowledge. What I thus clearly perceived in the simpler natural objects I soon traced in the province of living Nature, in plants and growing things, so far as these came under my observation, and in the animal kingdom as well.

Soon I became wholly penetrated and absorbed by the thought that it must be beyond everything else vital to man's culture and development, to the sure attainment of his destiny and fulfilment

of his vocation, to distinguish these tendencies accurately and sharply not only in their separate ascending grades, but also throughout the whole career of life. Moreover, I made a resolution that for some time I would devote myself to the study of the higher methods of teaching, so as to fit myself as a teacher in one of the higher centres of education, as, for example, one of the universities, if that might be. But it was not long before I found a double deficiency, which quickly discouraged me in this design. For, firstly, I wanted a fund of specially learned and classical culture; and next, I was generally deficient in the preparatory studies necessary for the higher branches of natural science. The amount of interest in their work shown by university students was, at the same time, not at all serious enough to attract me to such a career.

I soon perceived a double truth: first, that a man must be early led towards the knowledge of nature and insight into her methods—that is, he must be from the first specially trained with this object in view; and next, I saw that a man, thus led through all the due stages of a life-development should in order to be quite sure to accomplish in all steadiness, clearness, and certainty his aim, his vocation, and his destiny, be guarded from the very beginning against a crowd of misconceptions and blunders. Therefore I determined to devote myself rather to the general subject of the education of man.

Though the splendid lectures I heard on mineralogy, crystallography, geology, etc., led me to see the uniformity of Nature in her working, yet a higher and greater unity lay in my own mind. To give an example, it was always most unsatisfactory to me to see form developed from a number of various ground-forms. The object which now lay before my efforts and my thought was to bring out the higher unity underlying external form in such a self-evident shape that it should serve as a type or principle whence all other forms might be derived. But as I held the laws of form to be fixed, not only for crystals, but also just as firmly for language, it was more particularly a deep philosophical view of language which eventually absorbed my thoughts. Again, ideas about language which I had conceived long ago in Switzerland crowded before my mind. It seemed to me that the vowels

a, o, u, e, i, ä, au, ei, resembled, so to speak, force, spirit, the (inner) subject, whilst the consonants symbolised matter, body, the (outer) object. But just as in life and in nature all opposites are only relatively opposed, and within every circle, every sphere, both opposites are found to be contained, so also in language one perceives within the sphere of speech-tones the two opposites of subject and object. For example, the sound *i* depicts the absolute subject, the centre, and the sound *a* the absolute material object; the sound *e* serves for life as such, for existence in general; and *o* for individual life, for an existence narrowed to itself alone.

Language, not alone as the material for the expression of thought, but also as a type or epitome of all forms and manifestations of life, appeared to me to underlie the universal laws of expression. In order to learn these laws thoroughly, as exemplified in the teaching of the classical languages, I now returned again to the study of these latter, under the guidance of a clever teacher; and I began to strike out the special path which seemed to me absolutely necessary to be followed in their acquisition.

From this time onwards I gave all my thoughts to methods of education, whereto I was also further incited by some keen critical lectures on the history of ancient philosophy. These again afforded me a clear conviction of the soundness of my views of Nature and of the laws of human development.

Through my work at the dynamical, chemical, and mathematical aspects of Nature I came once more upon the consideration of the laws of number, particularly as manifested through figures; and this led me to a perfectly fresh general view of the subject—namely, that number should be regarded as horizontally related.* That way of considering the subject leads one to very simple fundamental conceptions of arithmetic, which, when applied in practice, prove to be as accurate as they are clear. The connection

* It is to be regretted that Froebel has not developed this point more fully He speaks of "die Betrachtung des Zahlensinnes in horizontaler oder Seiten-Richtung," and one would be glad of further details of this view of number. We think that the full expression of the thought here shadowed out, is to be found in the Kindergarten occupations of mat-weaving, stick-laying, etc., in their arithmetical aspect. Certainly in these occupations, instead of number being built up as with bricks, etc., it is laid along horizontally.

of these (dynamical and arithmetical) phenomena was demonstrably apparent to me; since arithmetic may be considered, firstly, as the outward expression of the manifestation of force, secondly (in its relationship to man), as an example of the laws of human thought.

On all sides, through nature as well as through history, through life as well as through science (and as regards the latter through pure science as well as through the applied branches), I was thus encountered and appealed to by the unity, the simplicity, and the unalterably necessary course, of human development and human education. I became impelled by an irresistible impulse towards the setting forth of that unity and simplicity, with all the force, both of my pen and of my life, in the shape of an educational system. I felt that education as well as science would gain by what I may call a more human, related, affiliated, connected treatment and consideration of the subjects of education.

I was led to this conviction on another ground, as follows:—Although my friends Langethal, Middendorff, and Bauer served with me all through the war in the same corps, and even in the same battalion, we were a great deal apart towards the close of the campaign, especially at the time we were quartered in the Netherlands, so that I, at all events, at the disbanding of the corps, knew not whither the others had gone. It was, therefore, an unexpected pleasure when, after a while, I found them all at Berlin again. My friends pursued their theological studies with earnestness, and I my natural science; therefore, at first we came little into contact with one another.

So passed several months, when suddenly life threw us closer together again. This came about through the call to arms in 1815. We all enlisted again together as volunteers. On account of our previous service, and by royal favour, we were at once promoted to officer's rank, and each one was appointed to a regiment. However, there was such a throng of volunteers that it was not necessary for any State officials to be called upon to leave their posts, or for students to interrupt their studies, and we therefore received counter-orders commanding us to stay at home. Middendorff, who felt sure of his speedy departure for the army,

preferred not to take lodgings for the short time of his stay in Berlin, and as there was room enough in mine for us both, he came and stayed with me. Yet we still seemed to draw very little closer together at first, because of the diversity of our pursuits; but soon a bond of union wove itself again, which was all the stronger on that very account. Langethal and Middendorff had endeavoured to secure a sufficiency for their support at the university by taking private tutorships in families, making such arrangements as that their university studies should not be interfered with. In the beginning of their work all seemed simple and easy, but they soon came upon difficulties both as regards the teaching and the training of the children entrusted to them. As our former conversations had so often turned upon these very subjects they now came to me to consult me, especially about mathematical teaching and arithmetic, and we set apart two hours a week, in which I gave them instruction on these matters. From this moment our mutual interchange of thought again became animated and continuous.

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Here the autobiography breaks off abruptly. Herr Wichard Lange had some trouble in deciphering it from Froebel's almost unreadable rough draft, and here and there he had even to guess at a word or so. Froebel had intended to present this letter to the Duke of Meiningen at the close of 1827, when the negotiations began to be held about a proposed National Educational Institution at Helba, to be maintained by the duke, after the similar proposal made to the Prince of Rudolstadt for Quittelsdorf earlier in the year had broken down. It is not known whether the present draft was ever finished, properly corrected, and polished into permanent form, nor whether it was ever delivered to the duke. It is highly probable that we have here all that Froebel accomplished towards it. It may be added that soon after Froebel's repeated plans and drafts for the Helba Institution had culminated in the final extensive well-known plan of the spring of 1829, the whole scheme fell through, from the jealousy of the prince's advisers, who feared Froebel's influence too much to allow him ever to get a footing amongst them.

Another fragment of autobiography, going on to a further period of his life, occurs in a long letter to the philosopher Krause,* dated Keilhau, 24th March, 1828, in reply to an article written by Krause five years before (1823) in Oken's journal, the well-known *Isis*,† in which article Krause had found fault with Froebel's two explanatory essays on Keilhau, written in 1822, separately published, and appearing also in the *Isis*, because Keilhau was there put forward as "an educational institution for all Germany" (Allgemeine Deutsche Erziehungs-Anstalt), whereas Krause desired it should rather style itself "a German institution for universal

* Carl Christian Friedrich Krause, an eminent philosopher, and the most learned writer on freemasonry in his day, was born in 1781, at Eisenberg, in Saxony. From 1801 to 1804 he was a professor at Jena, afterwards teaching in Dresden, Göttingen, and Munich, at which latter place he died in 1832.

† Lorenz Oken, the famous naturalist and man of science, was born at Rohlsbach, in Swabia, 1st August, 1779. (His real name was Ockenfuss.) In 1812 Oken was appointed ordinary professor of natural history at Jena, and in 1816 he founded his celebrated journal, the *Isis*, devoted chiefly to science, but also admitting comments on political matters. The latter having given

culture" (Deutsche Anstalt für Allgemeine menschliche Bildung). The rapid growth of Keilhau gave Froebel at the time no leisure for controversy. In 1827 began the cruel persecutions which eventually compelled him to leave Keilhau. Now whenever Froebel was under the pressure of outward difficulty, he always sought for help from within, and from his inward contemplation derived new courage and new strength to face his troubles. Out of such musings in the present time of adversity the long-awaited reply to Krause at length emerged. The disputative part, interesting in itself, does not here concern us. We pass at once to the brief sketch of his life contained in later parts of the letter, omitting what is not autobiographical. The earlier of these passages relate more succinctly the events of the same period already more fully described in the letter to the Duke of Meiningen; but we think it better to print the passages in full, in spite of their being to a great extent a repetition of what has gone before. Certain differences, however, will be found not unworthy of notice.

The Krause letter succeeded the other and more important letter (to the Duke of Meiningen) by some few months. Its immediate outcome was a warm friendship between Krause and Froebel; the latter, with Middendorff as his companion, journeying to Göttingen to make the philosopher's personal acquaintance, in the autumn of 1828. Long discussions on education took place at this interesting meeting, as we know from Leonhardi, Krause's pupil. Krause made Froebel acquainted with the works of Comenius, amongst other things, and introduced him to the whole learned society of Göttingen, where he made a great, if a somewhat peculiar, impression.

offence to the Court of Weimar, Oken was called upon either to resign his professorship or suppress the *Isis*. He chose the former alternative, sent in his resignation, transferred the publication of the *Isis* to Rudolstadt, and remained at Jena as a private teacher of science. In 1821 he broached in the *Isis* the idea of an annual gathering of German *savants*, and it was carried out successfully at Leipzig in the following year. To Oken, therefore, may be indirectly ascribed the genesis of the annual scientific gatherings common on the Continent, as well as of the British Association for the Advancement of Science, which at the outset was avowedly organised after his model. He died in 1851.

PART OF FROEBEL'S LETTER TO KRAUSE, DATED KEILHAU, 24TH MARCH, 1828.

. . . You have enjoyed, without doubt, unusual good fortune in having pursued the strict path of culture. You have sailed by Charybdis without being swallowed up by Scylla.* But my lot has been just the reverse.

As I have already told you in the beginning of this letter, I was very early impressed with the contradictions of life in word and deed—in fact, almost as soon as I was conscious of anything, living as a lonely child in a very narrowed and narrowing circle. A spirit of contemplation, of simplicity, and of childlike faith; a stern, sometimes cruel, self-repression; a carefully-fostered inward yearning after knowledge by causes and effects, together with an open-air life amidst Nature, especially amidst the world of plants, gradually freed my soul from the oppression of these contradictions. Thus, in my tenth and eleventh years, I came to dream of life as a connected whole without contradictions. Everywhere to find life, harmony, freedom from contradictions, and so to recognise with a keener and clearer perception the life-unity after which I dimly groped, was the silent longing of my heart, the mainspring of my existence. But the way thither through the usual school course, all made up of separate patches, considering things merely in their outward aspect, and connected by mere arbitrary juxtaposition, was too lifeless to attract me; I could not remember things merely put together without inner connection, and so it came about that after two of my elder brothers had devoted themselves to study, and because my third brother showed great capacity for study also, my own education was narrowed;

* Those acquainted with the classical mythology will forgive us for noting that Charybdis was, and is, a whirlpool on the Sicilian shore of the Straits of Messina, face to face with some caverns under the rock of Scylla, on the Italian shore, into which the waves rush at high tide with a roar not unlike a dog's bark.

but so much the more closely did a loving, guiding providence bind my heart in communion with Nature.*

In silent, trustful association with Nature and my mathematics, I lived for several years after my confirmation. In the latter part of the time my duties led me towards the study of natural laws, and thus towards the perception of the unity so often longed for in soul and spirit, and now at last gradually becoming clear from amidst the outwardly clashing phenomena of Nature.†

At last I could no longer resist the craving for knowledge which I felt within me. I thrust on one side all the ordinary school-learning which I utterly failed to appropriate in its customary disconnected state (it was meant only to be learned by rote, and this I never could recognise as the exclusive condition of a really comprehensive culture of the human mind), and I went up in the middle of my eighteenth year to the University of Jena. As I had been for two years past living completely with Nature and my mathematics, and dependent upon myself alone for any culture I might have arrived at, I came to the university much like a simple plant of nature myself. I was at this time peculiarly moved by a little knowledge I had picked up about the solar system, including particularly a general conception of Kepler's laws, whereby the laws of the spheres appealed to me on the one hand as an all-embracing, world-encircling whole, and on the other as an unlimited individualisation into separate natural objects. My own culture had been hitherto left to myself, and so also now I had to select my own studies and to choose my courses of lectures for myself. It was to be expected that the lectures of

* The peculiar dreamy boy, who by his nature was set against much of his work, and therefore seemed but an idle fellow to his schoolmaster, was thought to be less gifted than his brothers, and on that account fitted not so much for study as for simple practical life. In Oberweissbach he was set down as "moonstruck." All this is more fully set forth in the Meiningen letter, and the footnotes to it.

† This was the time when he was apprenticed to the forester in Neuhaus, in the Thüringer Wald, and necessarily studied mathematics, nature, and the culture of forest trees. Eyewitnesses have described him as extremely peculiar in all his ways, even to his dress, which was often fantastic. He was fond of mighty boots and great waving feathers in his green hunter's-hat, etc.

the professors would produce a singular effect upon me, and so they did.

I chose as my courses natural history, physics, and mathematics, but I was little satisfied. I seldom gained what I expected. Everywhere I sought for a sound method deriving itself from the fundamental principle lying at the root of the subject in hand, and afterwards summing up all details into that unity again; everywhere I sought for recognition of the quickening interconnection of parts, and for the exposition of the inner all-pervading reign of law. Only a few lectures made some poor approach to such methods, but I found nothing of the sort in those which were most important to me, physics and mathematics. Especially repugnant to me was the piece-meal patchwork offered to us in geometry, always separating and dividing, never uniting and consolidating.

I was, however, perfectly fascinated with the mathematical rules of "combination, permutation, and variation," but unhappily I could not give much time to their study, which I have regretted ever since. Otherwise, what I learned from the lectures was too slight for what I wanted, being, unluckily, altogether foreign to my nature, and more often a mere getting of rules by heart rather than an unfolding of principles. The theoretical and philosophical courses on various subjects did not attract me either, something about them always kept me at a distance; and from what I heard of them amongst my fellow-students, I could gather that here, too, all was presented in an arbitrary fashion, unnaturally divided, cut up, so to speak, into lifeless morsels; so that it was useless for my inner life to seek for satisfaction in those regions of study. But as I said above, there were some of the lectures which fostered my interest in the inner connection of all vital phenomena, and even helped me to trace it with some certainty in some few restricted circles.

But my financial position did not permit me to remain long at the university; and as my studies were those which fitted the student for practical professional life, though they were regarded from a higher point of view by myself in the privacy of my own thoughts, I had to return to ordinary every-day work, and use them as a means to earn my living. Yet, though I lived the outward business life to all appearance, it remained ever foreign

to my nature; I carried my own world within me, and it was that for which I cared and which I cherished. My observation of life (and especially that of my own life, which I pursued with the object of self-culture), joined with the love of Nature and with mathematics to work creatively upon me; and they united to fill my little mental world with many varied life-forms, and taught me at the same time to regard my own existence as one member of the great universal life. My plan of culture was very simple: it was to seek out the innermost unity connecting the most diverse and widely-separated phenomena, whether subjective or objective, and whether theoretical or practical, to learn to see the spiritual side of their activity, to apprehend their mutual relations as facts and forms of Nature, or to express them mathematically; and, on the other hand, to contemplate the natural and mathematical laws as founded in the innermost depths of my own life as well as in the highest unity of the great whole, that is indeed to regard them in their unconditioned, uncaused necessity, as "absolute things-in-themselves." Thus did I continue without ceasing to systematise, symbolise, idealise, realise and recognise identities and analogies amongst all facts and phenomena, all problems, expressions, and formulas which deeply interested me; and in this way life, with all its varied phenomena and activities, became to me more and more free from contradictions, more harmonious, simple, and clear, and more recognisable as a part of the life universal.

After I had lived for some years the isolated life I have described, though I was engaged the whole time in ordinary professional pursuits, all at once there broke upon my soul, in harmony with the seasons of nature, a springtime such as I had not before experienced; and an unexpected life and life-aim budded and blossomed in my breast. All my inner life and life-aims had become narrowed to the circle of self-culture and self-education. The outer life, my profession, I carried on as a mere means of subsistence, quite apart from my real inner self, and my sphere of operation was limited. I was driven perforce from pillar to post till at last I had arrived where the Main unites herself with the Rhine.* Here there budded and opened to my soul one lovely

* *i.e.*, Frankfurt.