

Bergman; the two soon became excellent friends. In 1774 Scheele published his epoch-making investigation into the black oxide of manganese, which had occupied him for two or three years, and in 1775 his memoirs on benzoic and arsenic acids. In the same year he left Upsala, in order to settle at Köping, a small place at the western extremity of Lake Mälär. Having heard that an apothecary's shop was vacant, he applied for it, passed a brilliant examination before the medical college, and was appointed. But, instead of a small flourishing business, he found that he had to face confusion and debt. Undismayed he set to work, introduced order and some prosperity, and in two years bought the business from the widow of the former proprietor. During this unfortunate period Scheele must have worked very hard, for in spite of debt and difficulties he published in 1777 his treatise upon *Air and Fire*, one of the most remarkable books in the whole range of chemical literature, whether its originality, its close reasoning, the number of discoveries which it contains, or the enormous amount of experimental work it represents be considered. About this time Bergman obtained for him from the Academy a grant, Scheele's appreciation of which was shown by his reserving one-sixth for his personal wants and devoting the remainder to his experiments.

Subsequent to this period, and for the remaining nine years of his life, the only events to be recorded are the papers which he composed. Every year he published two or three, and almost every one contained a capital discovery, either the explanation of a phenomenon or reaction previously misunderstood or the description of some new compounds. He was at the zenith of his now European fame as a profound chemist and unflinching experimenter, and in the best years of his life, when his career was suddenly arrested. The common account is that his unremitting work, especially at night, exposing him to cold and draughts, induced a rheumatic attack, to which in the course of a couple of months he succumbed. Possibly his strength had been exhausted by long years of privation and neglect of himself. He had intended, as soon as his circumstances should enable him, to marry the widow of his predecessor. His illness, however, increased very fast, and it was on his death-bed that he carried out his design on the 19th May 1786. Two days later he died, bequeathing to his wife what property he had acquired. He was only forty-four years of age.

The discoveries with which Scheele enriched chemistry are numerous and important. Reference has been already made to the discovery of tartaric acid and of the composition of fluor-spar. The analysis of manganese oxide in 1774 led him to the discovery of chlorine and of baryta (*terra ponderosa*; as it was called), to individualizing the salts of manganese itself, including the green and purple compounds with potash, and to the explanation of how manganese colours and decolorizes glass. In 1775 he showed how to prepare benzoic acid by precipitating it from a solution in lime, and he investigated arsenic acid and its reactions with different substances, discovering arseniuretted hydrogen and the green colour "Scheele's green,"—a process for preparing which on the large scale he published in 1778. Other researches of this period were concerned with the nature of quartz, clay, and alum, and with an animal concretion or calculus from which he got for the first time uric acid.

The treatise on *Air and Fire* appeared in 1777. It is unnecessary now to enter into Scheele's argument, for, however admirably it be worked out, it started from an erroneous basis, and it is equally impossible in limited space even to enumerate the experiments and the discoveries which fill this book, and which have remained as permanent acquisitions to science through all subsequent changes of theory. Among the most important of these is his demonstration that the air consists mainly of two gases,—one which supports the burning of bodies, the other which prevents it. This he showed both analytically and synthetically. His "empyreal," or "fire-air," or oxygen, he obtained for his synthesis from acid of nitre, from saltpetre, from black oxide of manganese, and from several other bodies. After the discovery of this substance Scheele applied it to account for a great number of actions, and especially for its function in respiration and the growth of plants. He went through a long

series of actions, seemingly the most diverse in character, trying to bring them under one general law and making at every step the most acute and far-reaching observations and discovering new compounds and new reactions. Thus he incidentally made and described sulphuretted hydrogen gas, and he explained the chemical effect of light upon compounds of silver and other substances.

In 1778 he proposed a new method of making calomel and powder of algaroth. He also examined a mineral, *molybdama nitens*, which had been supposed to contain lead, but which he showed was quite distinct, and he got from it molybdic acid. He demonstrated in 1779 that plumbago consists almost solely of carbon, and he published a record of estimations of the amount of pure air, *i. e.*, of oxygen, contained in the atmosphere, which he had carried on daily during the entire year of 1778. In 1780 he showed that the acidity of sour milk was due to a peculiar acid, now called lactic acid; and from milk sugar, by boiling it with nitric acid, he obtained mucic acid. His next discovery, in 1781, was the composition of tungsten, since called scheelite, which he found consisted of lime combined with a peculiar acid—tungstic acid. The following year he examined the mode of producing ether, and in 1783 discovered glycerin, the sweet principle of fats and oils. In 1782–1783 appeared a research which—of all those Scheele conducted—exhibits his experimental genius at its very best. By a wonderful succession of experiments he showed that the colouring matter of Prussian blue could not be produced without the presence of a substance of the nature of an acid, to which was ultimately given the name of prussic acid. He showed how this body was composed, described its properties and compounds, and mentioned its smell and taste, utterly unaware of its deadly character. Nothing but a study of Scheele's own memoir can give an adequate notion of the manner in which he attacked and solved a problem so difficult and complicated as this was at the period in the history of chemistry when Scheele lived. In 1784–85–86 he returned to the subject with which he had begun his career, that of the vegetable acids, and described four new ones—citric, malic, oxalic, and gallic acids.

The preceding is a bare list of the more prominent of Scheele's discoveries, for it must be remembered that he was not merely the first to prepare these bodies, but that he made all the compounds of them possible at the time and explained the conditions under which he produced them. Notable as is the list, and of supreme importance as are most of the bodies themselves, no conception can be gathered from it of Scheele's immense power of experimental research,—a power that has seldom, if ever, been surpassed. His natural endowments were cultivated by unremitting practice and undivided attention; for scientific work was at once his occupation and his relaxation. To appreciate this fully his own account of his researches must be studied. It will thus be seen that his discoveries were not made at haphazard, but were the outcome of experiments carefully planned to substantiate the accuracy of theoretical views at which he had arrived. He thus saved himself unnecessary labour; his experiments tell decisively on the question at issue, and he reached his conclusions by the shortest and simplest means. At the same time he left nothing in doubt if experiment would establish it; he grudged no labour to make the truth indisputable; and he evidently never considered his work complete about any body unless he could both unmake and remake it. For him chemistry was both an analytic and a synthetic science, and he shows this prominently in his researches on Prussian blue.

His accuracy, qualitative and quantitative,—considering his primitive apparatus, his want of assistance, his place of residence, the undeveloped state of chemical and physical science,—was unrivalled. The work he executed left hardly anything to be added to it; it was as thoroughly done as it was in the power of an all-conscientious man to do. The one aim of Scheele's life—and he never swerved from it—was the experimental discovery of the truth in nature. Like many other short-lived men of genius he compressed into his few years an amount of work of the greatest originality; but how he managed to do it is a mystery to the less-gifted. What he might have achieved had he lived a little longer can only be surmised; but it may be supposed that, under the newer theory of combustion to which he himself had unwittingly contributed so much, he would have made certainly no fewer and no less important discoveries than those which were the outcome of his erroneous predecessor.

Scheele's papers appeared first in the *Transactions of the Swedish Academy of Sciences*, in Groll's *Neue Entdeckungen und Annalen*, and in other periodicals. A list of them is given in Fuchs's *Repertorium der chemischen Literatur*, Jena, 1806–1808; in Reuss's *Repertorium Commentationum*, vol. III., Göttingen, 1803; and in Poggenдорff's *Biographisch-literarisches Handwörterbuch*, Leipzig, 1862. They were collected and published in French, English, Latin, and German: *Mémoires de Chimie*, 2 vols., Paris, 1785–88; *Chemical Essays*, by Thomas Beddoes, 1 vol., London, 1786; *Opuscula*, translated by Schifer, edited by Hebenstreit, 2 vols., Leipzig, 1788–89; *Sämmtliche Werke*, edited by Hermbstädt, 2 vols., Berlin, 1793. The *Treatise on Air and Fire* appeared in German, Upsala and Leipzig, 1777, and again in 1782; in English, by J. R. Forster, London, 1780; in French, by Dietrich, Paris, 1781. (J. F.)

SCHAEFFER, ARY (1795–1858), Dutch painter, who was born at Dort on 10th February 1795, represents the senti-

mental phase of the Romantic movement in France. After the early death of his father, a poor painter, Ary was taken to Paris and placed in the studio of Guérin by his mother, a woman of great energy and character. The moment at which Scheffer left Guérin coincided with the commencement of the Romantic movement. He had little sympathy with the directions given to it by either of its most conspicuous representatives, Sigalon, Delacroix, or Gericault, and made various tentative efforts—Gaston de Foix (1824), Suliot Women (1827)—before he found his own path. Immediately after the exhibition of the last-named work he turned to Byron and Goethe, selecting from *Faust* a long series of subjects which had an extraordinary vogue. Of these, we may mention Margaret at her Wheel; Faust Doubting; Margaret at the Sabbath; Margaret Leaving Church; the Garden Walk; and lastly, perhaps the most popular of all, Margaret at the Well. The two Mignons appeared in 1836; and Francesca da Rimini, which is on the whole Scheffer's best work, belongs to the same period. He now turned to religious subjects: Christus Consolator (1836) was followed by Christus Remunerator, the Shepherds Led by the Star (1837), The Magi Laying Down their Crowns, Christ in the Garden of Olives, Christ Bearing his Cross, Christ Interred (1845), St Augustine and Monica (1846), after which he ceased to exhibit, but, shut up in his studio, continued to produce much which was first seen by the outer world after his death, which took place at Argenteuil on the 15th June 1858. At the posthumous exhibition of his works there figured the Sorrows of the Earth, and the Angel Announcing the Resurrection, which he had left unfinished. Amongst his numerous portraits those of La Fayette, Béranger, Lamartine, and Marie Amélie were the most noteworthy. His reputation, much shaken by this posthumous exhibition, was further undermined by the sale of the Paturle Gallery, which contained many of his most celebrated achievements; the charm and facility of their composition could not save them from the condemnation provoked by their poor and earthy colour and vapid sentiment. Scheffer, who married the widow of General Baudrand, was only made commander of the Legion of Honour in 1848,—that is, after he had wholly withdrawn from the Salon. His brother Henri, born at The Hague 27th September 1798, was also a fertile painter.

See Vitet's notice prefixed to Bingham's publication of works of A. Scheffer; Etex, *Ary Scheffer*; Mrs Grote, *Life of A. Scheffer*; Julius Meyer's *Geschichte der französischen Kunst*.

SCHELD, or SCHELDE (Fr. *Escant*, Lat. *Scaldis*, O. Dutch *Schoude* or *Schouwe*), a river of north-west Europe, belonging for 75 miles of its course to France, 137 to Belgium, and 37 to the Netherlands. Rising at a height of 295 feet above the sea, in a small lake (7 square miles) at the old abbey of St Martin, near Catelet, in the French department of Aisne (Picardy), it becomes navigable by the junction of the St Quentin Canal, below Catelet, and passes by Cambray, Denain (where it receives the Selle), Valenciennes, at the mouth of the Rouelle, Condé, at the mouth of the Haisne or Henne, and Château l'Abbaye, at the mouth of the Scarpe. Entering Belgium between Mortagne and Hollain, it continues by Fontenoy, Tournay, and Oudenarde to Ghent, where it is joined by the Lys from the left, and by the canals which unite this town with Sas and Bruges. At Ghent the tide rises 3½ feet and lasts for four hours; and it would ascend much farther were it not for sluices. But the river, instead of proceeding straight towards the sea, as it appears to have done perhaps as late as the time of Charlemagne, makes a great bend towards the east to Dendermonde (the mouth of the Dender) and Antwerp, whence it again turns north-west and loses itself in the estuaries among the islands of

Zealand. The whole of the lowlands to the north of Ghent are so intersected with canals, and the natural channels are so intermingled with those partially or entirely artificial, that it is impossible to discover with certainty what has been the real history of the lower course of the Scheldt.¹ The Hont or Western Scheldt, the principal estuary by which nearly all Belgium commerce is conveyed, was probably opened up by a storm in 1173 and about 1058 must have been a mere narrow creek. The Eastern Scheldt, which then received most of the river, has gradually diminished in importance, and since the construction of the railway bridge across it between the mainland and South Beveland in 1867 has become completely obstructed with sands. At Antwerp the depth at high water is 49 feet.

Between 1648 and 1792 the Dutch closed the mouths of the Scheldt against foreign commerce. The emperor Joseph of Austria, at that time ruler of Antwerp, protested against this action in 1783, but in 1784, by the treaty of Fontainebleau, he recognized, in return for concessions of territory and 9½ million florins, the right of the Dutch to adhere to the terms of the peace of Westphalia. In 1792 by conquest of Dumouriez, and in 1795 by treaty between France and Holland, the Scheldt was declared open. During the union of Holland and Belgium the question naturally lay in abeyance. When Belgium became independent (1839) Holland so far resumed her exclusive policy, but in 1863 the dues which she was allowed to levy by the treaty of separation were capitalized by Belgium paying 17,141,640 florins, a sum which was largely repaid to Belgium by twenty other countries who felt they had an interest in the free navigation of the Scheldt. Great Britain's share was 8,782,320 francs.

See Viquain, *Des Voutes Navigables en Belgique*, 1842; Wauvermans, "Sur les Variations de l'Escant au XVI. siècle," in *Bull. de la Soc. de Géogr. d'Anvers*, vol. I.; Raemdonck, "L'Hist. du Cours de l'Escant," and Verstraete, "Cours Primitif de l'Escant," both in *Bull. de la Soc. Belge de Géogr.*, 1878.

SCHELLING, FRIEDRICH WILHELM JOSEPH VON (1775–1854), a distinguished German philosopher, was born on 27th January 1775 at Leonberg, a small town of Würtemberg, otherwise notable as scene of the early years of Kepler's life. Through both parents he was connected with families of distinction in the Protestant church community. His father, a solidly trained scholar of Oriental languages, was called in 1777 as chaplain and professor to the cloister school of Bebenhausen, near Tübingen, a preparatory seminary for intending students of theology at Tübingen. Here Schelling received his earliest education and gave the first evidences of what afterwards so eminently distinguished him, remarkable precocity and quickness of intellect. From the Latin school at Nürtingen, whither he had been sent in his tenth year, he was returned in two years as having already acquired all the school could give him, and his father with regret was compelled to allow him at so abnormally young an age to study with the seminarists at Bebenhausen. In 1790, with special permission, for he was yet three years under the prescribed age, Schelling entered the theological seminary at Tübingen, where he had as fellow students, contemporary as scholars though elder in years, Hegel and Hölderlin. The character and direction of his studies may be gathered sufficiently from the titles of the essays which for various purposes were accomplished during the five years of his student career. In 1792 he graduated in the philosophical faculty with a thesis *Antiquissimi de prima malorum humanorum origine philosophematis explicandi tentamen criticum et philosophicum*; in 1793 he contributed to Paulus's *Memorabilien* a paper *Ueber Mythos, historische Sagen, und Philosophie der ältesten Welt*; and in 1795 his thesis for his theological degree was *De Marcione Paullinarum epistolarum emendatore*. The influence of these early studies over his later literary career

¹ Bylandt, Belpaire, Renard, and Wauvermans impugne, and Des Roches, Viquain, Van Raemdonck and Verstraete maintain, the existence within historic times of a direct main-river channel from Ghent northward to the sea.

has been often exaggerated, but doubtless they contributed to strengthen his natural tendency to dwell rather on the large historico-speculative problems than on the difficulties of abstract thinking. Before the date of his last essay noted above, a new and much more important influence had begun to operate on him. In conjunction with some of his fellow-students he was in 1793 studying the Kantian system. The difficulties or imperfections of that system he claims soon to have perceived, and no doubt the perception was quickened by acquaintance with the first of those writings in which Fichte put forward his amended form of the critical philosophy. The "Review of *Ænesidemus*" and the tractate *On the Notion of Wissenschaftslehre* found in Schelling's mind most fruitful soil. With characteristic zeal and impetuosity Schelling had no sooner grasped the leading ideas of Fichte's new mode of treating philosophy than he threw together the thoughts suggested to him in the form of an essay, which appeared, under the title *Ueber die Möglichkeit einer Form der Philosophie überhaupt*, towards the end of 1794. There was nothing original in the treatment, but it showed such power of appreciating the new ideas of the Fichtean method that it was hailed with cordial recognition by Fichte himself, and gave the author immediately a place in popular estimation as in the foremost rank of existing philosophical writers. The essay was followed up in 1795 by a more elaborate writing, *Vom Ich als Princip der Philosophie, oder über das Unbedingte im menschlichen Wissen*, which, still remaining within the limits of the Fichtean idealism, yet exhibits unmistakable traces of a tendency to give the Fichtean method a more objective application, and to amalgamate with it Spinoza's more realistic view of things.

The reputation so quickly gained led soon to its natural result. In midsummer 1798 Schelling was called as extraordinary professor of philosophy to Jena, and thus stepped into the most active literary and philosophical circle of the time. The intervening period had not been unfruitful. While discharging for two years at Leipsic the duties of companion or tutorial guardian to two youths of noble family, Schelling had contributed various articles and reviews to Fichte and Niethammer's *Journal*, and had thrown himself with all his native impetuosity into the study of physical and medical science. From 1796 date the *Briefe über Dogmatismus und Kriticismus*, an admirably written critique of the ultimate issues of the Kantian system, which will still repay study; from 1797 the essay entitled *Neue Deduction des Naturrechts*, which to some extent anticipated Fichte's treatment in the *Grundlage des Naturrechts*, published in 1796, but not before Schelling's essay had been received by the editors of the *Journal*. The reviews of current philosophical literature were afterwards collected, and with needful omissions and corrections appeared under the title "Abhandlungen zur Erläuterung des Idealismus der Wissenschaftslehre" in Schelling's *Philos. Schriften*, vol. i., 1809. The studies of physical science bore rapid fruit in the *Ideen zu einer Philosophie der Natur*, 1797, and the treatise *Vom der Weltseele*, 1798, the drift of which will be noted later.

Schelling's professoriate in Jena lasted till the early part of 1803. His lectures were extraordinarily attractive; his productive powers were at their best; and the circumstances of his surroundings developed forcibly the good and evil qualities of his character. Of his writings during this period a merely chronological notice will meanwhile suffice. In 1799 appeared the *Erster Entwurf eines Systems der Naturphilosophie*, with an independent and subsequent *Einleitung*; in 1800 the *System des transcendentalen Idealismus*, in form one of the most finished, in substance one of the most satisfactory of his works; in

the same year, in the *Zeitschrift für spekulative Physik*, edited by him, "Allgemeine Deduction des dynamischen Processes"; and in 1801 the *Darstellung meines Systems der Philosophie*; in 1802, in the *Neue Zeitschr. für spek. Physik*, the "Fernere Darstellungen aus dem System der Philosophie"; also in 1802 the dialogue *Bruno* and the excellently written *Vorlesungen über die Methode des akademischen Studiums*. In conjunction with Hegel, who in 1801 at Schelling's invitation had come to Jena, he edited the *Kritisches Journal für Philosophie*, the greater part of which was written by Hegel. Regarding the authorship of certain articles in the volume and a half of this *Journal* a discussion of no great significance has arisen, concerning which perhaps the best statement is that by Schelling's son in the preface to vol. v. of the *Sämmtliche Werke*, Abth. i.

The philosophical renown of Jena reached its culminating point during the years of Schelling's residence there, in no small measure through the imposing force of his character and teaching. Recognized as of the first rank among living thinkers he was received with every mark of distinction, and his intellectual sympathies soon united him closely with some of the most active literary tendencies of the time. With Goethe, who viewed with interest and appreciation the poetical fashion of treating fact characteristic of the *Naturphilosophie*, he continued on excellent terms, while on the other hand he was repelled by Schiller's less expansive disposition, and failed altogether to understand the lofty ethical idealism that animated his work. By the representatives of the Romantic school, then in the height of their fervour and beginning their downward course, he was hailed as a most potent ally, and quickly became *par excellence* the philosopher of the Romantic type. The Schlegels and their friends, who had found at least one fundamental principle of Romantic strain in Fichte, had begun to be dissatisfied with the cold and abstract fashion of viewing nature that seemed necessarily to follow from the notion of the *Wissenschaftslehre*, and at the same time the deep-seated antagonism of character between Fichte and the impetuous litterateurs of the Romantic school was beginning to be felt. In Schelling, essentially a self-conscious genius, eager and rash, yet with undeniable power, they hailed a personality of the true Romantic type, and in his philosophy a mode of conceiving nature adequate to the needs of poetic treatment. During the Jena period the closest union obtained between Schelling and those who either at Jena or at Berlin carried on warfare for the Romantic idea. With August Wilhelm Schlegel and his gifted wife Caroline, herself the embodiment of the Romantic spirit, Schelling's relations were of the most intimate kind. Personal acquaintance made at Dresden before Schelling began his professorial career at Jena rapidly developed into a warm friendship, to which circumstances soon gave a new and heightened colour. Caroline Schlegel, a woman of remarkable receptive and appreciative power, emotional to excess, and full of the ardent ill-balanced sympathies that constituted the Romantic tone, felt for Schelling unbounded admiration. In him she found the philosophic view which gave completeness and consistency to the tumultuous literary and personal feelings that animated her, and she was not less attracted by the dominating force of his personal character. It is probable that in the early stages of their friendship a future marriage between Schelling and Caroline's young daughter, Auguste Böhmer, was, if not definitely understood, yet vaguely contemplated by both, and that in consequence neither was fully aware of the nature of the feelings springing up between them. The untimely death of Auguste in the summer of 1800, a death in which Schelling's rash confidence in his medical knowledge was unfor-

tunately involved, while a severe blow to both, drew them much more closely together, and in the following year, A. W. Schlegel having removed to Berlin, and Caroline remaining in Jena, affairs so developed themselves that quietly, amicably, and in apparently the most friendly manner, a divorce was arranged and carried to its completion in the early summer of 1803. On the 2d June of the same year Schelling and Caroline, after a visit to the former's father, were married, and with the marriage Schelling's life at Jena came to an end. It was full time, for Schelling's undoubtedly overweening self-confidence and most arrogant mode of criticism had involved him in a series of virulent disputes and quarrels at Jena, the details of which are in themselves of little or no interest, but are valuable as illustrations of the evil qualities in Schelling's nature which deface much of his philosophic work. The boiling fervour which the Romantics prized is deplorably ineffective in the clear cold atmosphere of speculation.

A fresh field was found in the newly-constituted university of Würzburg, to which he was called in September 1803 as professor of "Naturphilosophie," and where he remained till April 1806, when the Napoleonic conquests compelled a change. The published writings of this period (*Philosophie und Religion*, 1804, and *Ueber das Verhältniss des Realen und Idealen in der Natur*, 1806), and still more the unpublished draft of his lectures as continued in volumes v. and vi. of the *Sämmtliche Werke*, exhibit an important internal change in his philosophic views, a change which was accentuated by the open breach on the one hand with Fichte and on the other with Hegel. Schelling's little pamphlet *Darlegung des wahren Verhältnisses der Naturphilosophie zur verbesserten Fichtischen Lehre* was the natural sequel to the difference which had brought the correspondence of the former friends to a close in 1803, and to Fichte's open condemnation in the *Grundzüge d. gegenwärt. Zeitalters*. Hegel's preface to the *Phänomenologie des Geistes* was in like manner the sequel to the severe treatment which in his Jena lectures he had bestowed on the emptiness of the Schellingian method, and with the appearance of that work correspondence and friendship between the two ceased, and in Schelling's mind there remained a deeply rooted sense of injury and injustice.

The Würzburg professoriate had not been without its inner trials. Schelling had many enemies, and his irreconcilable and lofty tone of dealing with them only increased the virulence of their attacks. He embroiled himself with his colleagues and with the Government, so that it was doubtless with a sense of relief that he found external events bring his tenure of the chair to a close. In Munich, to which with his wife he removed in 1806, he found a long and quiet residence. A position as state official, at first as associate of the academy of sciences and secretary of the academy of arts, afterwards as secretary of the philosophical section of the academy of sciences, gave him ease and leisure. Without resigning his official position he lectured for a short time at Stuttgart, and during seven years at Erlangen (1820-27). In 1809 Caroline died, and three years later Schelling married one of her closest, most attached friends, Pauline Gotter, in whom he found a true and faithful companion.

During the long stay at Munich (1806-1841) Schelling's literary activity seemed gradually to come to a standstill. The "Aphorisms on Naturphilosophie" contained in the *Jahrbücher der Medicin als Wissenschaft* (1806-8) are for the most part extracts from the Würzburg lectures; and the *Denkmal der Schrift von den göttlichen Dingen des Herrn Jacobi* was drawn forth by the special incident of Jacobi's work. The only writing

of significance is the "Philosophische Untersuchungen über das Wesen der menschlichen Freiheit," which appeared in the *Philosophische Schriften*, vol. i. (1809), and which carries out, with increasing tendency to mysticism, the thoughts of the previous work, *Philosophie und Religion*. In 1815 appeared the tract *Ueber die Gottheiten zu Samothrake*, ostensibly a portion of the great work, *Die Weltalter*, on which Schelling was understood to be engaged, a work frequently announced as ready for publication, but of which no great part was ever written. Probably it was the overpowering strength and influence of the Hegelian system that constrained Schelling to so long a silence, for it was only in 1834, after the death of Hegel, that, in a preface to a translation by H. Beckers of a work by Cousin, he gave public utterance to the antagonism in which he stood to the Hegelian and to his own earlier conceptions of philosophy. The antagonism certainly was not then a new fact; the Erlangen lectures on the history of philosophy (*Sämmt. Werke*, x. 124-5) of 1822 express the same in a pointed fashion, and Schelling had already begun the treatment of mythology and religion which in his view constituted the true positive complement to the negative of logical or speculative philosophy. Public attention, which had been from time to time drawn to Schelling's prolonged silence, was powerfully attracted by these vague hints of a new system which promised something more positive, as regards religion in particular, than the apparent results of Hegel's teaching. For the appearance of the critical writings of Strauss, Feuerbach, and Bauer, and the evident disunion in the Hegelian school itself, had alienated the sympathies of many from the then dominant philosophy. In Berlin particularly, the headquarters of the Hegelians, the desire found expression to obtain officially from Schelling a treatment of the new system which he was understood to have in reserve. The realization of the desire did not come about till 1841, when the appointment of Schelling as Prussian privy councillor and member of the Berlin Academy, gave him the right, a right he was requested to exercise, to deliver lectures in the university. The opening lecture of his course was listened to by a large and most appreciative audience; and thus, in the evening of his career, Schelling found himself, as often before, the centre of attraction in the world of philosophy. The enmity of his old foe H. E. G. Paulus, sharpened by Schelling's apparent success, led to the surreptitious publication of a verbatim report of the lectures on the philosophy of revelation, and, as Schelling did not succeed in obtaining legal condemnation and suppression of this piracy, he in 1845 ceased the delivery of any public courses. No authentic information as to the nature of the new positive philosophy was obtained till after his death in 1854, when his sons began the issue of his collected writings with the four volumes of Berlin lectures:—vol. i., *Introduction to the Philosophy of Mythology* (1856); ii., *Philosophy of Mythology* (1857); iii. and iv., *Philosophy of Revelation* (1858).

Whatever judgment one may form of the total worth of Schelling as a philosopher, his place in the history of that important movement called generally German philosophy is unmistakable and assured. It happened to him, as he himself claimed, to turn a page in the history of thought, and one cannot ignore the actual advance upon his predecessor achieved by him or the brilliant fertility of the genius by which that achievement was accomplished. On the other hand it is not to be denied that Schelling, to whom an unusually long period of activity was accorded, nowhere succeeds in attaining the rounded completeness of scientific system. His philosophical writings, extended over more than half a century, lie before us, not as parts of one whole, but as the successive manifestations of a restless highly endowed spirit, striving continuously but unsuccessfully after a solution of its own problems. Such unity as they possess is a unity of tendency and endeavour; they are not parts of a whole, and in some respects the final form they assumed is the least satisfactory of all. Hence it has come about

that Schelling remains for the philosophic student but a moment of historical value in the development of thought, and that his works have for the most part ceased now to have more than historic interest. Throughout his thinking bears the painful impress of hurry, incompleteness, and spasmodic striving after an ideal which could only be attained by patient, laborious, and methodic effort. Brilliant contributions there are without doubt to the evolution of a philosophic idea, but no systematic fusion of all into a whole. It is not unfair to connect the apparent failings of Schelling's philosophizing with the very nature of the thinker and with the historical accidents of his career. In the writings of his early manhood, for example, more particularly those making up *Naturphilosophie*, one finds in painful abundance the evidences of hastily-acquired knowledge, impatience of the hard labour of minute thought, over-confidence in the force of individual genius, and desire instantaneously to present even in crudest fashion the newest idea that has dawned upon the thinker. Schelling was prematurely thrust into the position of a foremost productive thinker; and when the lengthened period of quiet meditation was at last forced upon him there unfortunately lay before him a system which achieved what had dimly been involved in his ardent and impetuous desires. It is not possible to acquit Schelling of a certain disingenuousness in regard to the Hegelian philosophy; and if we claim for him perfect disinterestedness of view we can do so only by imposing on him the severer condemnation of deficient insight.

It was a natural concomitant of this continuous hurry under which Schelling's successive efforts at constructive work were carried out that he should have been found at all stages supporting himself by calling to his aid the forms of some other system. The characteristic phases of his development might without injustice be characterized by reference to these external supports. Thus Fichte, Spinoza, Jakob Boehme and the Mystics, and finally, the great Greek thinkers with their Neoplatonic, Gnostic, and Scholastic commentators, give respectively colouring to particular works in which Schelling unfolds himself. At the same time it would be unjust to represent Schelling as merely borrowing from these external sources. There must be allowed to him genuine philosophic spirit and no small measure of philosophic insight. Of the philosophic *afflatus* he was in no want; and it might be fairly added that, under all the differences of exposition which seem to constitute so many differing Schellingian systems, there is one and the same philosophic effort and spirit. But what Schelling did want was power to work out scientifically, methodically, the ideas with which his spirit was filled and mastered. Hence he could only find expression for himself in forms of this or that earlier philosophy, and hence too the frequent formlessness of his own thought, the tendency to relapse into mere impatient despair of ever finding an adequate vehicle for transmitting thought.

It is thus, moreover, a matter of indifference how one distributes or classifies the several forms and periods of Schelling's philosophic activity. Whether one adopts as basis the external form, *i. e.*, the foreign mode of speculation laid under contribution, or endeavours to adhere closely to inner differences of view, the result is very much the same. There is one line of speculative thought, in the development of which inevitable problems call for new methods of handling, while the results only in part can claim to have a place accorded to them in the history of philosophy. It is fair in dealing with Schelling's development to take into account the indications of his own opinion regarding its more significant moments. In his own view the turning points seem to have been—(1) the transition from Fichte's method to the more objective conception of nature,—the advance, in other words, to *Naturphilosophie*; (2) the definite formulation of that which implicitly, as Schelling claims, was involved in the idea of *Naturphilosophie*, *viz.*, the thought of the identical, indifferent, absolute substratum of both nature and spirit; the advance to *Identitätsphilosophie*; (3) the opposition of negative and positive philosophy, an opposition which is the theme of the Berlin lectures, but the germs of which may be traced back to 1804, and of which more than the germs are found in the work on freedom of 1809. Only what falls under the first and second of the divisions so indicated can be said to have discharged a function in developing philosophy; only so much constitutes Schelling's philosophy proper. A very brief notice of the characteristic features of the three studia must here suffice.

(1) *Naturphilosophie*.—The Fichtean method had striven to exhibit the whole structure of reality as the necessary implication of self-consciousness. The fundamental features of knowledge, whether as activity or as sum of apprehended fact, and of conduct had been deduced as elements necessary in the attainment of self-consciousness. Fichtean idealism therefore at once stood out negatively, as abolishing the dogmatic conception of the two real worlds, subject and object, by whose interaction cognition and practice arise, and as amending the critical idea which retained with dangerous caution too many fragments of dogmatism; positively, as insisting on the unity of philosophical interpretation

and as supplying a key to the form or method by which a completed philosophic system might be constructed. But the Fichtean teaching appeared on the one hand to identify too closely the ultimate ground of the universe of rational conception with the finite, individual spirit, and on the other hand to endanger the reality of the world of nature by regarding it too much after the fashion of subjective idealism, as mere moment, though necessitated, in the existence of the finite thinking mind. It was almost a natural consequence that Fichte never succeeded in amalgamating with his own system the aesthetic view of nature to which the *Kritik of Judgment* had pointed as an essential component in any complete philosophy.

From Fichte's position Schelling started. From Fichte he derived the ideal of a completed whole of philosophic conception; from Fichte he derived the formal method to which for the most part he continued true. The earliest writings tended gradually towards the first important advance. Nature must not be conceived as merely abstract limit to the infinite striving of spirit, as a mere series of necessary thoughts for mind. It must be that and more than that. It must have reality for itself, a reality which stands in no conflict with its ideal character, a reality the inner structure of which is ideal, a reality the root and spring of which is spirit. Nature as the sum of that which is objective, intelligence as the complex of all the activities making up self-consciousness, appear thus as equally real, as alike exhibiting ideal structure, as parallel with one another. The philosophy of nature and transcendental philosophy are the two complementary portions of philosophy as a whole.

Animated with this new conception Schelling made his hurried rush to *Naturphilosophie*, and with the aid of Kant and of fragmentary knowledge of contemporary scientific movements, threw off in quick succession the *Ideen*, the *Weltseele*, and the *Erster Entwurf*. *Naturphilosophie*, which thus became an historical fact, has had scant mercy at the hands of modern science; and undoubtedly there is much in it, even in that for which Schelling alone is responsible, for which only contempt can be our feeling. Schelling, one must say, had neither the strength of thinking nor the acquired knowledge necessary to hold the balance between the abstract treatment of cosmological notions and the concrete researches of special science. His efforts after a construction of natural reality are bad in themselves and gave rise to a wearisome flood of perfectly useless physical speculation. Yet it would be unjust to ignore the many brilliant and sometimes valuable thoughts that are scattered throughout the writings on *Naturphilosophie*,—thoughts to which Schelling himself is but too frequently untrue. Regarded merely as a criticism of the notions with which scientific interpretation proceeds, these writings have still importance and might have achieved more had they been untainted by the tendency to hasty, ill-considered, *a priori* anticipations of nature.

Nature, as having reality for itself, forms one completed whole. Its manifoldness is not then to be taken as excluding its fundamental unity; the divisions which our ordinary perception and thought introduce into it have not absolute validity, but are to be interpreted as the outcome of the single formative energy or complex of forces which is the inner aspect, the soul of nature. Such inner of nature we are in a position to apprehend and constructively to exhibit to ourselves in the successive forms which its development assumes, for it is the same spirit, though unconscious, of which we become aware in self-consciousness. It is the realization of spirit. Nor is the variety of its forms imposed upon it from without; there is neither external teleology in nature, nor mechanism in the narrower sense. Nature is a whole and forms itself; within its range we are to look for no other than natural explanations. The function of *Naturphilosophie* is to exhibit the ideal as springing from the real, not to deduce the real from the ideal. The incessant change which experience brings before us, taken in conjunction with the thought of unity in productive force of nature, leads to the all-important conception of the duality, the polar opposition through which nature expresses itself in its varied products. The dynamical series of stages in nature, the forms in which the ideal structure of nature is realized, are matter, as the equilibrium of the fundamental expansive and contractive forces; light, with its subordinate processes,—magnetism, electricity, and chemical action; organism, with its component phases of reproduction, irritability, and sensibility.¹

Just as nature exhibits to us the series of dynamical stages of processes by which spirit struggles towards consciousness of itself, so the world of intelligence and practice, the world of mind, exhibits the series of stages through which self-consciousness with its inevitable oppositions and reconciliations develops in its ideal form. The theoretical side of inner nature in its successive grades from sensation to the highest form of spirit, the abstracting reason which emphasizes the difference of subjective and objective, leaves

¹ The briefest and best account in Schelling himself of *Naturphilosophie* is that contained in the *Einleitung zu dem Ersten Entwurf* (S. W., III.). The fullest and most lucid statement of *Naturphilosophie* is that given by K. Fischer in his *Gesch. d. n. Phil.*, vi. 433-692.

an unsolved problem which receives satisfaction only in the practical, the individualizing activity. The practical, again, taken in conjunction with the theoretical, forces on the question of the reconciliation between the free conscious organization of thought and the apparently necessitated and unconscious mechanism of the objective world. In the notion of a teleological connexion and in that which for spirit is its subjective expression, *viz.*, art and genius, the subjective and objective find their point of union.

(2) Nature and spirit, *Naturphilosophie* and *Transcendentalphilosophie*, thus stand as two relatively complete, but complementary parts of the whole. It was impossible for Schelling, the animating principle of whose thought was ever the reconciliation of differences, not to take and to take speedily the step towards the conception of the uniting basis of which nature and spirit are manifestations, forms, or consequences. For this common basis, however, he did not succeed at first in finding any other than the merely negative expression of indifference. The identity, the absolute, which underlay all difference, all the relative, is to be characterized simply as *neutrium*, as absolute undifferentiated self-equivalence. It lay in the very nature of this thought that Spinoza should now offer himself to Schelling as the thinker whose form of presentation came nearest to his new problem. The *Darstellung meines Systems*, and the more expanded and more careful treatment contained in the lectures on *System der gesammten Philosophie und der Naturphilosophie insbesondere* given in Würzburg, 1804 (published only in the *Sammtliche Werke*, vol. vi. p. 131-576), are thoroughly Spinozistic in form, and to a large extent in substance. They are not without value, indeed, as extended commentary on Spinoza. With all his efforts, Schelling does not succeed in bringing his conceptions of nature and spirit into any vital connexion with the primal identity, the absolute indifference of reason. No true solution could be achieved by resort to the mere absence of distinguishing, differentiating feature. The absolute was left with no other function than that of removing all the differences on which thought turns. The criticisms of Fichte, and more particularly of Hegel (in the "Vorrede" to the *Phänomenologie des Geistes*), point to the fatal defect in the conception of the absolute as mere featureless identity.

(3) Along two distinct lines Schelling is to be found in all his later writings striving to amend the conception, to which he remained true, of absolute reason as the ultimate ground of reality. It was necessary, in the first place, to give to this absolute a character, to make of it something more than empty sameness; it was necessary, in the second place, to clear up in some way the relation in which the actuality or apparent actuality of nature and spirit stood to the ultimate real. Schelling had already (in the *System der ges. Phil.*) begun to endeavour after an amalgamation of the Spinozistic conception of substance with the Platonic view of an ideal realm, and to find therein the means of enriching the bareness of absolute reason. In *Bruno*, and in *Philos. u. Religion*, the same thought finds expression. In the realm of ideas the absolute finds itself, has its own nature over against itself as objective over against subjective, and thus is in the way of overcoming its abstractness, of becoming concrete. This conception of a difference, of an internal structure in the absolute, finds other and not less obscure expressions in the mystical contributions of the *Menschliche Freiheit* and in the scholastic speculations of the Berlin lectures on mythology. At the same time it connects itself with the second problem, how to attain in conjunction with the abstractly rational character of the absolute an explanation of actuality. Things,—nature and spirit,—have an actual being. They exist not merely as logical consequence or development of the absolute, but have a stubbornness of being in them, an antagonistic feature which in all times philosophers have been driven to recognize, and which they have described in varied fashion. The actuality of things is a defection from the absolute, and their existence compels a reconsideration of our conception of God. There must be recognized in God as a completed actuality, a dim, obscure ground or basis, which can only be described as not yet being, but as containing in itself the impulse to externalization, to existence. It is through this ground of Being in God Himself that we must find explanation of that independence which things assert over against God. And it is easy to see how from this position Schelling was led on to the further statements that not in the rational conception of God is an explanation of existence to be found, nay, that all rational conception extends but to the form, and touches not the real,—that God is to be conceived as act, as will, as something over and above the rational conception of the divine. Hence the stress laid on will as the realizing factor, in opposition to thought, a view through which Schelling connects himself with Schopenhauer and Von Hartmann, and on the ground of which he has been recognized by the latter as the reconciler of idealism and realism. Finally, then, there emerges the opposition of negative, *i. e.*, merely rational philosophy, and positive, of which the content is the real evolution of the divine as it has taken place in fact and in history and as it is recorded in the varied mythologies and religions of mankind. Not much satisfaction can be felt with the exposition of either as it appears in the volumes of Berlin lectures.

Schelling's works were collected and published by his sons, in 14 vols., 1856-61. For the life good materials are to be found in the three vols., *Aus Schelling's Leben in Briefen*, 1869-70, in which a biographic sketch of the philosopher's early life is given by his son, and in *Waltz, Karoline*, 2 vols., 1871. An interesting little work is Klüber, *Hölderlin, Hegel, u. Schelling in ihren Schicksaligen Jugendjahren*, 1877. The biography in Kuno Fischer's volume is complete and admirable. Apart from the expositions in the larger histories of modern philosophy, in Michelet, Erdmann, Willm., and Kuno Fischer, and in Haym's *Romantische Schule*, valuable studies are—Rosokranz, *Schelling*, 1843; Noack, *Schelling und die Philosophie der Romantik*, 2 vols., 1859; Franz, *Schelling's positive Philosophie*, 2 vols., 1879-80; Watson, *Schelling's Transcendental Idealism*, 1882. (R. AD.)

SHEMNITZ (Hung. *Selmeczbanya*), a mining town in the Cis-Danubian county of Hont, Hungary, lies about 65 miles north from Budapest, in 48° 27' N. lat., 18° 52' E. long., on an elevated site, 2300 feet above the level of the sea. Its institutions include a Roman Catholic and a Protestant gymnasium, a high school for girls, a court of justice, a hospital, and several benevolent and scientific societies. Schemnitz owes its chief importance to the fact of its being the mining centre of the kingdom. Connected with this local industry are important Government institutions, such as various mining superintendencies, a chemical analytical laboratory, and an excellent academy of mining and forestry (with a meteorological observatory and a remarkable collection of minerals), attended by pupils from all countries of Europe and also from America. The mines are chiefly the property of the state and the corporation; the average yield annually is—gold, 232 lb; silver, 45,000 lb; lead, 11,600 cwt.; copper, 180 cwt. Iron, arsenic, &c., to the value of about £150,000 are also produced. There are also flourishing potteries where well-known tobacco pipes are manufactured. With Schemnitz is conjoined the town of Bélabánya; their united population in 1884 was 15,265, chiefly Slovaks, of whom nearly 3000 were engaged in mining.

Schemnitz, which was already noted for its mines in the time of the Romans, has played considerable part in the history of Hungary. The archives of the town contain many interesting documents. After the Tartar invasion in the 12th century it was colonized by Germans, but had become quite Slavonized before the academy of mining was founded by Maria Theresa (1760). The school of forestry was added in 1809. The corporation is wealthy, having received special commercial privileges from the crown in consideration of pecuniary aid afforded in times of emergency.

SCHENECTADY, a city of the United States, county seat of Schenectady county, New York, in the valley of the Mohawk river, 17 miles by rail north-west of Albany, with which it is also connected by the Erie Canal. It is best known as the seat of Union College, an institution founded in 1795 by a union of several religious sects, and now possessed of large endowments, extensive buildings, and a valuable library, and along with the Albany medical and law schools, &c., forming the Union University. Besides manufacturing locomotives, iron bridges, and agricultural implements, Schenectady has shawl, hosiery, carriage, and varnish factories. The population was 9579 in 1860, 11,026 in 1870, and 13,655 in 1880.

Occupying the site of one of the council grounds of the Mohawks, Schenectady was chosen as a Dutch trading post in 1620, was chartered in 1684, and became a borough in 1765 and a city in 1798. In 1691 it was burned by the French and Indians, and sixty-three of its inhabitants massacred.

SCHETKY, JOHN ALEXANDER (1785-1824), a younger brother of J. C. Schetky (see below), studied medicine in Edinburgh university and drawing in the Trustees' Academy. As a military surgeon he served with distinction under Lord Beresford in Portugal. He contributed excellent works to the exhibitions of the Royal Academy and of the Water-Colour Society, and executed some of the illustrations in Sir W. Scott's *Provincial Antiquities*. He died at Cape Coast Castle, 5th September 1824, when preparing to follow Mungo Park's route of exploration.

SCHETKY, JOHN CHRISTIAN (1778-1874), marine painter, descended from an old Transylvanian family, was born in Edinburgh on the 11th of August 1778. He studied art under Alexander Nasmyth, and after having

travelled on the Continent he settled in Oxford, and taught for six years as a drawing-master. In 1808 he obtained a post in the military college, Great Marlow, and three years later he received a congenial appointment as professor of drawing in the naval college, Portsmouth, where he had ample opportunities for the study of his favourite marine subjects. From 1836 to 1855 he held a similar professorship in the military college, Addiscombe. To the Royal Academy exhibitions he contributed at intervals from 1805 to 1872, and he was represented at the Westminster Hall competition of 1847 by a large oil-painting of the Battle of La Hogue. He was marine painter to George IV., William IV., and Queen Victoria. Among his published works are the illustrations to Lord John Manners's *Cruise in Scotch Waters*, and a volume of photographs from his pictures and drawings issued in 1867 under the title of *Veterans of the Sea*. He died in London, on the 28th of January 1874.

One of his best works, the *Loss of the Royal George*, painted in 1840, is in the National Gallery, London, and the United Service Club possesses another important marine subject from his brush. His memoir by his daughter was published in 1877.

SCHEVENINGEN, a fishing village and watering-place in Holland, on the North Sea, about two miles from The Hague, with which it is connected by a shaded avenue with a tramway. There is a fine sandy beach below the line of dunes that separate the village from the sea. The terrace crowning the dunes serves as a promenade. Population in 1879, 7713. Scheveningen has a considerable herring fleet. In a naval engagement off the coast in 1673 De Ruyter defeated the combined forces of the French and English.

SCHIAVONETTI, LUIGI (1765–1810), engraver, was born at Bassano in Venetia, on April 1, 1765. After having studied art for several years he was employed by Testolini, an engraver of very indifferent abilities, to execute imitations of Bartolozzi's works, which he passed off as his own. In 1790 Testolini was invited by Bartolozzi to join him in England, and, it having been discovered that Schiavonetti, who accompanied him, had executed the plates in question, he was taken by Bartolozzi into his employment, and, having greatly improved under his instruction, he became an eminent engraver in both the line and the dot manner, "developing an individual style which united grandeur with grace, boldness, draughtsman-like power, and intelligence with executive delicacy and finish." Among his early works are four plates of subjects from the French Revolution, after Benazech. He also produced a *Mater Dolorosa* after Vandyck, and Michelangelo's cartoon of the *Surprise of the Soldiers on the Banks of the Arno*. From 1805 to 1808 he was engaged in etching Blake's designs to Blair's *Grave*, which, with a portrait of the artist engraved by Schiavonetti after T. Phillips, R.A., were published in the last-named year. The etching of Stothard's *Canterbury Pilgrims* was one of his latest works, and on his death on the 7th of June 1810 the plate was taken up by his brother Niccolo, and finally completed by James Heath.

SCHIEDAM, a town of the Netherlands, in the province of South Holland, not far from the confluence of the Schie with the Maas, 3 miles by rail from Rotterdam. It is best known as the seat of a great gin manufacture, which, carried on in more than two hundred distilleries, gives employment besides to malt-factories, cooperages, and cork-cutting establishments, and supplies grain refuse enough to feed about 30,000 pigs. Other industries are ship-building, glass-blowing, and candle-moulding. Schiedam, which has recently been growing rapidly towards the south-west in the Nieuw-Frankenland, is not behind the larger of the Netherlands cities in the magnificence of its private

residences, but none of its public buildings are of much note. It is enough to mention the Grootte or Jans-Kerk, with the tomb of Cornelis Haga, ambassador to Turkey, the old Roman Catholic church, the synagogue, the town-house, the exchange, the Musis Sacrum, the post office (Blaauwhuis), and a ruined castle (Huis te Riviere). The population of the commune increased from 9157 in 1811 to 12,360 in 1840, 21,103 in 1875, 23,035 in 1880, and 24,321 in 1884; the population of the town was 18,854 in 1870.

Schiedam, which first appears in a document of 1264, obtained privileges from Floris V. in 1275, and gradually acquired importance as a commercial town. In the 16th century it had a considerable share in the herring fishery and carried on salt-making, brick-making, and weaving, and began to turn its attention to distilling. The town was flooded in 1775.

SCHIEFNER, FRANZ ANTON (1817–1879), linguist, was born at Reval, in Russia, on the 18th July 1817. His father was a merchant who had emigrated from Bohemia at the end of last century. He received his education at the grammar school of his native place, where also his subsequent colleague, the celebrated naturalist Karl Ernst von Baer, had been brought up. He matriculated at St Petersburg as a law student in 1836, but while qualifying for this profession he pursued with keen interest the study of the classics, and subsequently devoted himself at Berlin, from 1840 to 1842, exclusively to Eastern languages. On his return to St Petersburg in 1843 he was employed in teaching the classics in the First Grammar School, and soon afterwards received a post in the Imperial Academy, where in 1852 the cultivation of the Tibetan language and literature was assigned to him as his special function. Simultaneously he held from 1860 to 1873 the professorship of classical languages in the Roman Catholic theological seminary. From 1854 till his death he was an extraordinary member of the Imperial Academy. He died after a fortnight's illness on the 16th November 1879.

Schiefner made his mark in literary research in three directions. First, he contributed to the *Memoirs and Bulletin* of the St Petersburg Academy, and brought out independently, a number of valuable articles and larger publications on the language and literature of Tibet. He possessed also a remarkable acquaintance with Mongolian, and when death overtook him had just finished a revision of the New Testament in that language with which the British and Foreign Bible Society had entrusted him. Further, he was one of the greatest authorities on the philology and ethnology of the Finnic tribes. He edited and translated the great Finnic epic *Kalevala*; he arranged, completed, and brought out in twelve volumes the literary remains of Alexander Castrén, bearing on the languages of the Samoyedic tribes, the Koibal, Karagass, Tungusian, Buryat, Ostiak, and Kottic tongues, and prepared several valuable papers on Finnic mythology for the Imperial Academy. In the third place, he made himself the exponent of recent investigations into the languages of the Caucasus, which, thanks to his lucid analyses, have now been placed within reach of European philologists. Thus he gave a full analysis of the Tush language, and in quick succession, from Baron P. Uslar's investigations, comprehensive papers on the Awar, Ude, Abkhasian, Tchetchenz, Kasi-Kumük, Hürkanian and Kürinian languages. He had also completely mastered the Ossetic, and brought out a number of translations from that language, several of them accompanied by the original text. For many of his linguistic investigations he had, with as much tact as patience, availed himself of the presence in St Petersburg of natives (soldiers chiefly) of the districts on the languages of which he happened to be engaged. The importance, however, of the vast mass of linguistic material thus opened up by him, and of the results to which his investigations led, has not yet been fully realized, except so far, perhaps, as his numerous contributions to our knowledge of Eastern fables are concerned, for which branch of literature he evinced throughout his works a keen appreciation.

With a rare philological acumen, which with equal facility grasped the morphological and idiomatic parts of a language, Schiefner combined an indefatigable industry and a love of research which never flagged. He visited England three times for purposes of research,—in 1863, 1867, and 1878,—when he endeared himself to all who were brought in contact with him by his modesty and single-heartedness, his animated and spirited conversation, and his unswerving devotion to his various literary pursuits.

The following list of his works has been drawn up from biographical notices which appeared in the *Athenaeum* for 24th January 1880, and in the *Bulletin* of the St Petersburg Academy, xxvi. pp. 30–44.—*Bemerkungen zum Polyepon Text des Decididhampa*, 1846; *Beiträge zur Kritik des Bhartrihari aus G'nyapad-hara's Paddhati*, 1847; (with A. Weber), *Varia Lectiones ad Dolomit editionem Bhartrihari's sententiarum pertinentes*, 1850; *Über die topischen und grammatik-ischen Werke des Tandjari*, 1847; *Über Indra's Donnerkeil*, 1848; *Nachträge zu den von G. Böhlingk und J. Schmidt verfaßten Verzeichnissen der auf Indien und Tibet bezüglichen Handschriften und Holecdrücke im asiatischen Museum der k. Akademie der Wissenschaften*, 1848; *Eine tibetische Lebensbeschreibung G'nyapad-hara's*, 1848; *Über das Werk "Rgyal tcher rol pa"*, 1848–50; *Tibetische Studien*, 1851–54; *Über eine eigenthümliche Art der tibetischen Composita*, 1856; *Über Sprachbeziehungen im Tibetischen*, 1877; *Über die Verschlechterungs-Perioden der Menschheit nach buddhistischer Anschauungsweise*, 1851; *Bericht über die neueste Bücherfindung aus P-king*, 1851; *Das buddhistische Sātra der 42 Sätze aus dem Tibetischen übersetzt*, 1851; *Ergänzungen und Berichtigungen zu J. Schmidt's Ausgabe des Dzunglun*, 1852; *Über das Werk "Histoire de la vie de H'ouen-tsang"*, 1853; *Bericht über die wissenschaftliche Thätigkeit des Herrn Professors Wassiljew*, 1854; *Über die nepaleschen, assamischen, und ceslonischen Münzen des asiatischen Museums*, 1854; *Ein kleiner Beitrag zur mongolischen Paläographie*, 1856; *Sprachliche Gedanken gegen das Monopolem der Skythen*, 1856; *Bericht über Prof. Wassiljew's Werk über den Buddhismus*, 1856; *Über die unter dem Namen "Geschichte des Ardshir Borsdsh Chan" bekannte mongolische Märchenammlung*, 1857; *Carminis indit Vimalaprasastara ratnamālā versio tibetica, mit deutscher Übersetzung*, 1856; *Buddhistische Triplote*, 1859; *Über ein indisches Krähenerakel*, 1859; *Über die hohen Zäulen der Buddhisten*, 1862; *Jätsche's Bemühungen um eine Handschrift des Gesar*, 1868; *Tāranāthas de doctrina buddhica in India propagatione narratio tibetica*, 1868 (German, 1869); *Über einige morgenländische Fassungen der Rhapsodie*, 1869; *Zur buddhistischen Apokalypik*, 1874; *Bharatm resposio, tib. et latina*, 1874; *Mahākāyānā und König Tchanda-prajñāta*, 1875; *Über die hohen Zäulen der Buddhisten*, 1875; *Indische Erzählungen*, 1876–77 (an English translation of these by W. R. S. Ralston appeared in 1882); *Über Vasubandhu's Gāthāsaṅgraha*, 1878; *Über eine tibetische Handschrift des Indra House*, 1879; *Über das Bonpo-Sātra*, 1880; *Zur Samponmythe*, 1880; *Kleine Beiträge zur javanischen Mythologie*, 1882; *Zur ethnischen Mythologie*, 1884; *Über den Mythos der Javanischen Märchen*, 1885; *Über die Bildensagen der mittelasiatischen Völker*, 1885; *Heldensagen, etc., rhytmisch bearbeitet*, 1889; *Zum Mythos vom Weltuntergang*, 1889; *Über die ethnische Sage vom Kalevali-poeg*, 1890; *Zur russischen Heldensage*, 1861; *Über Kalevala und die Kalevalien*, 1862; *Kalevala, deutsch in rhytmischer Form*, 1892; *Über das Thier "taras" im Javischen Epos*, 1887; *Über die hohen Zäulen der Buddhisten*, 1887; *Über das Wort "savage" im Javischen Epos*, 1861; *Versuch einer etymologischen Sprachlehre*, 1849–1856; *Grammatik und Wörterverzeichnisse der samojedischen Sprachen*, 1854–1855; *Grundzüge einer tungusischen Sprachlehre*, 1856; *Versuch einer burjatischen Sprachlehre*, 1857; *Versuch einer kobaltischen und karagassischen Sprachlehre*, 1857; *Versuch einer jaman-ostjakischen und esthischen Sprachlehre*, 1858; *Das isomonatliche Jahr und die Monatsnamen der esthischen Völker*, 1856; *Über die Sprache der Jukagiren*, 1859–71; *Beiträge zur Kenntnis der tungusischen Mundarten*, 1869; *Tungusische Miscellen*, 1874; *Über die von G. von Maydell gesammelten tungusischen Sprachproben*, 1874; *A. Czekanowski's tungusische Wörterverzeichnisse*, 1877; *Über sibirische Eigenkumussachen*, 1855–1859; *Kurze Charakteristik der Tuschsprache*, 1854; *Versuch über die Tuschsprache*, 1856; *Versuch über das Awarische*, 1862; *Über Baron Uslar's neuere linguistische Forschungen*, 1863; *Versuch über die Sprache der Uden*, 1863; *Ausführlicher Bericht über Baron Uslar's abchastische Studien*, 1863; *Tschetschenische Studien*, 1864; *Ausführlicher Bericht über Baron Uslar's kaschkumische Studien*, 1866; *Hürkanische Studien*, 1871; *Awarische Studien*, 1873; *Kürinische Studien*, 1873; *Awarische Texte*, 1873; *Ossetische Sprichwörter*, 1863; *Ossetische Texte*, 1863; *Zwei ossetische Märchen*, 1864; *Ossetische Sagen und Märchen*, 1867.

SCHILLER, JOHANN CHRISTOPH FRIEDRICH (1759–1805), German dramatist and poet, was born at Marbach, in Württemberg, on the 10th or 11th (probably 10th) November 1759. His grandfather and great-grandfather had been bakers in Bittenfeld, a village at the point where the Rems flows into the Neckar; and the family was probably descended from Jacob Georg Schiller, who was born in Grosseheppach, another Swabian village, in 1587. Schiller's father, Johann Kaspar Schiller, who was about thirty-six years of age when his son was born, was a man of remarkable intelligence and energy. In 1749, after the War of the Austrian Succession, in which he had served as a surgeon in a Bavarian regiment of hussars, he went to visit a married sister at Marbach, a little town on the Neckar; and here, a few months after his arrival, he married Elizabeth Dorothea Kodweiss, a girl of seventeen, the daughter of the landlord of the inn in which he had a lodging. She had great sweetness and dignity of character, and exercised a strong influence over her husband, who, although essentially kind and thoroughly honourable, was apt to give way to a somewhat harsh and imperious temper. They had six children, of whom the eldest, Christophine, was born eight years after their marriage. Next came Schiller, and after him were born four daughters, of whom only two, Louisa and Nanette, survived infancy.

Until Schiller was four years of age his mother lived with her parents in Marbach, while his father served in the Württemberg army, in which he gradually rose to the rank of major. In 1764 the elder Schiller was joined by his family at Lorch, a village on the eastern border of Württemberg, where he served for about three years as a recruiting officer. Afterwards he was transferred to Ludwigsburg,

and in 1775 he was made overseer of the plantations and nursery gardens at the Solitude, a country residence of the duke of Württemberg, near Stuttgart. The duties of this position were congenial to the tastes of Major Schiller, and he became widely known as a high authority on the subjects connected with his daily work.

At Lorch Schiller had been taught by the chief clergyman of the village, Pastor Moser, whose name he afterwards gave to one of the characters in *Die Räuber*. When the family settled in Ludwigsburg he was sent to the Latin school, which he attended for six years. He took a good place in the periodical examinations, and was much liked by his masters and fellow-pupils, for he was active, intelligent, and remarkable for the warmth and constancy of his affections. At a very early age he gave evidence of a talent for poetry, and it was carefully fostered by his mother, who was herself of a poetic temperament. His parents intended that he should become a clergyman, but this decision was abandoned at the request—practically by the order—of the duke of Württemberg, who insisted on his being sent to the military academy, an institution which had been established at the Solitude for the training of youths for the military and civil services. Schiller entered this institution early in 1773, when he was between thirteen and fourteen years of age, and he remained in it until he was twenty-one. For some time he devoted himself to the study of jurisprudence, but the subject did not interest him, and in 1775, when a medical faculty was instituted at the academy, he was allowed to begin the study of medicine. In that year the academy was transferred from the Solitude to Stuttgart.

Schiller was often made wretched by the harsh and narrow discipline maintained at the academy, but it had no permanently injurious effect on his character. With several of his fellow-students he formed a lasting friendship, and in association with them, notwithstanding the vigilance of the inspectors, he was able to read many forbidden books, including some of the writings of Rousseau, Klopstock's *Messiah*, the early works of Goethe, translations of a few of Shakespeare's plays, and a German translation of Macpherson's rendering of the poems of Ossian. Under these influences he became an ardent adherent of the school which was then protesting vehemently against traditional restrictions on individual freedom; and he contrived to make opportunities for the expression, in more or less crude dramas and poems, of his secret thoughts and aspirations. For about two years work of this kind was interrupted by the pressure of professional studies; but in the last year of his residence at the academy he resumed it with increased fervour. In this year he wrote the greater part of *Die Räuber*, the most striking passages of which he read to groups of admiring comrades.

On the 14th December 1780 Schiller was informed that he had been appointed medical officer to a grenadier regiment in Stuttgart, and he almost immediately began his new duties. He was not a very expert doctor, and he was too passionately devoted to literature to take much trouble to excel in a profession which he disliked. *Die Räuber* was soon finished, and in July 1781 it was published at his own expense, some persons of his acquaintance having become security for the necessary amount. This famous play is ill-constructed, and contains much boyish extravagance, but it is also full of energy and revolutionary fervour, and it captivated the imagination of many of Schiller's contemporaries. Early in 1782 it was represented at the Mannheim theatre, and it was so warmly applauded that Schiller, who had stolen away from Stuttgart to see his play, began to think it might be possible for him to devote his time wholly to the work of