ARTICLE V.

THE STUDY OF MONUMENTS.

FROM THE GERMAN OF PROF. FERDINAND PIPER, OF BERLIN, BY REV.
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[Note. — The following Article is a translation of an Address delivered before the Philological Convention held in Hanover in 1864, and entitled, "Ueber die Einführung der monumentalen, insbesondere der christlich-monumentalen Studien in den Gymnasial-Unterricht." The relation between the gymnasia and the universities of Germany being in general similar to that between our colleges and professional schools, Professor Piper's plea for the study of monuments in gymnasia is equally valid for the study of them in our colleges. Much is omitted from the Article which would be of interest chiefly to Germans; but it has been thought best not to change the form of the Address in general, as the reader can readily supply the modifications necessary to make the truth presented applicable to our own circumstances and institutions, and the changes would be likely to diminish the freshness, more than they would increase the pertinency, of Professor Piper's remarks.]

The question of monumental studies as a part of the course of instruction in gymnasia leads to the consideration of three points: first, the necessity of them as an organic part of the course; next, their place in the course; finally, the requisite conditions of their prosecution.

I. The necessity of these studies may be argued from two grounds: on the one hand, the gymnasia have a claim upon them on their own account; on the other, the universities have a right to insist on this preliminary training. The pedagogic and scientific interests therefore coincide; and this very coincidence furnishes a strong proof that the necessity is a real one.

To speak briefly of the latter point, the claim of the university, it is justified by the fact that without this preparation on the part of the students the university cannot properly do its own work. The students need not so much a preliminary knowledge of facts, as that their taste for art and an appreciation of its works should have been awakened and
cultivated; for this is a special faculty, and needs to be excited early. It is clearly too late to begin this cultivation at the age of eighteen or nineteen, after one has finished his academic course. Besides, this neglect easily produces a positive effect: not only is the preparation lacking, but a fatal prejudice against the whole thing may be produced, and that too, much more in the sphere of classical than of theological study, because the gymnasia enter more thoroughly into the former, and aim to confer a classical culture in a certain sense complete. If however this culture is gained only from literary monuments, as if the subject were thus exhausted, the monuments of art are made to seem superfluous and unnecessary. And the consequence is soon manifest: he who in the gymnasia is initiated into the poetry of Sophocles will very likely also read Aeschylus at the university; but he who, though he may have there heard of works of art, has yet acquired no fondness for them, perhaps never enters a museum.

More pressing is the claim which the gymnasia can urge for itself, as the whole object of academic instruction shows. This object may be stated as threefold:

1. It may doubtless be assumed that the higher schools (those which do not aim to educate men for special vocations, but borrow their means of education chiefly from classical antiquity) have to do with the whole man, not with particular faculties of the mind; that their part is rather to develop and train them all. For this purpose, however, as the nature of the instruction requires, the understanding is principally appealed to, since the subjects are introduced to the mind in a disintegrated, fragmentary form, one part after another. As a corrective for restoring the equilibrium, it has long been seen that the intuitive faculty must be brought into use. This is already done to some extent, e.g. in the study of geometry by the construction of plain figures, or by the use of solid bodies (regular ones, the cone with its sections, etc.), in geography by maps, in natural history by the exhibition of pictures, or of specimens either prepared or
natural. But this mode of representation is confined to space. A higher form of intuition, one which conducts us from the visible to the spiritual world, is afforded by works of art.

This course is now and then taken, even in instruction in languages, when a piece, after being taught analytically, is brought vividly before the mind as a whole. This is done in the middle stage of instruction by the declamation of poems and prose pieces; and in the higher stage, as the blossom and completion of the reading of classic works, by the acting of a Greek drama. But, as those who take part confess, the scheme often consumes a whole term; and that is a sacrifice which can only rarely be made. Now although in such a way, when one verse after another has been first gone through, a general impression is attained, still there is this drawback, in poetry as well as in music, that we can perceive only in succession. To escape from this there is no way but to have recourse to the works of plastic art.

For these stand still as we contemplate them. But they require us constantly to look beyond the visible form to the thought that lies beneath, and to carry out this thought in our conception of the whole and of each particular; the possibility remaining of a repeated return from one to the other. This way, however, of attaining to an understanding of a work of art is the way in which all knowledge is attained, but can only here be shown with special clearness and practised with safety. Hence it is, in point of method, invaluable. But there are two particulars involved in it:

First. As in poetry and music the first requisite is the art of hearing, i.e. the ability to distinguish and measure the rhythm and the tones, so here the first thing demanded is to discern and determine what is visible. This is no small art, as is to be seen every day in common life, where eye-witnesses give very different reports of an event, and not only render a one-sided account, but relate what never happened at all. So it is with the monuments of art; men not only see them incorrectly, but see in them what is not there
at all. I witnessed an example at Ravenna. On a piece of the ivory bishop’s seat in the sacristy of the cathedral, is represented a female figure sitting on an ass, which is led by an angel; an elderly man is walking by her side, supporting and conducting her. It was said, agreeably to the traditional explanation there adopted: This is the flight into Egypt. By the question, where then was the child, the by-standers were nonplussed, until some one resorted to the shift that it was probably concealed under the mother’s garment. But in reality the scene is the journey to Bethlehem, which preceded the birth. As a safeguard against such errors, therefore, is demanded the art of seeing merely what there is to be seen. We have indeed a seemingly opposite direction from the author of Laocoon: “The more we see,” says Lessing, “the more must we be able to add in thought. And the more our thought adds, the more must we think that we see.” But this relates to another kind of seeing, viz. with the mind’s eye—reading, as it were, between the lines. And of this it is indeed true that, the more attentively we contemplate a genuine work of art, the more does it become articulate and speak to us. This leads us to the second point, the art of interpretation.

Its field is wide, and it has, according to the nature and design of the monuments of art, various forms, just as have the hermeneutics of literary monuments. Two of these deserve to be specially mentioned, as bearing on the interests of education: the psychological and the historico-religious. The former is to be applied wherever the artist, impressed by his theme, was able to breathe into his work the feelings and mood of his own soul. These become visible in the attitude and bearing of the separate figures, in the relation of the figures to each other, in the whole composition. The introduction to this department of art, to the art of interpretation,

1 The false interpretation, with the same shift, is derived from Bandini, In tabulum eburneam, etc., Observat. p. 39 (where also a picture of the tablet is given). The correction was made by Münter, Sinnbilder, H. II. S. 751.

ciating that which is full of soul and of detecting false pathos, may of itself furnish a sort of course in practical psychology. By the side of this subjective form stands the objective interpretation, and, as the highest form of this, the historicoreligious and theological, in cases where myth or revelation has furnished the subject for the work of art. An example of the former I take from Lycia, where a bright light is thrown on the state of nations hitherto obscure, by the Harpy monument of Xanthos. On the tower-like groundwork rests the monument proper, with the chamber of the dead, which is surrounded with a pictorial frieze. This contains, above the grave door, which at the same time indicates the entrance to Hades, a suckling cow, as a symbol of life-giving force and nourishing care; on the left is the goddess of death, enthroned alone; on the other side, the goddess of life, receiving homage from three women, one of whom holds an egg, another, pomegranate blossoms and fruit. On the adjoining sides four harpies are represented, the upper part of their bodies resembling women, the lower part shaped like an egg, with the wings, tail, and legs of a bird, each of them holding an infant. They have seized the infant, it is true, with the claws, a sign of inevitable fate; but in other respects their expression is mild, and they embrace the child with maternal arms, and it turns trustfully toward them,— an image of the soul and of its fate in death. Herein is expressed the sentiment that death is a passage into life. Thus we have here a witness to the belief in immortality in the lower stages of Grecian art and poetry. In the Homeric narrative also, the harpies figure as the genii of death, but with a fainter significance; the suckling cow is found on the coins of Grecian cities; and the egg, which in the monument of Xanthos is brought to the goddess of life by one of the worshipping women (to say nothing of the bodily form of the harpies), has also a place in the monumental symbolics of Greece and Rome. A monument, however, so unique

1 I follow the explanation of Curtius in the Archäologische Zeitschrift, 1855, No. 73.
in its kind and of such fundamental significance, involving so deep a meaning, and yet containing the key to its own interpretation, should, one might think, not be kept from the youth in schools of learning, and seems pre-eminently suited, as its secret is elicited from it, to awaken a sense for the language of art.

Nevertheless, the didactic use of these works of art extends further than merely to train the faculties and develop the intuitive powers. One cannot take up such images, especially in his younger years, without being captivated by the thing itself, so that the mind is enriched, the feelings refined, and convictions gained and strengthened. And so we find the connection between this and the second object of schools.

2. For though the formal object, the harmonious cultivation of the mental faculties, was first emphasized, yet we cannot stop with this. The gymnasium has clearly not only to give a gymnastic training to the mind, but to fill the mind and form the character. And to this end there is no other way than to bring men beyond themselves to archetypal forms, or to the beautiful itself, of which Plato says that he leads no bad life who aspires after it and sees it and holds intercourse with it. But these archetypes become visible in the works of art. The argument for so early an introduction to the study of works of art will however fail, if, following modern speculation, we reckon the aesthetic sense as a middle thing, higher than belief, and lower than the perception of truth, as though these were stages, the lower of which must give way to the higher. On the contrary, all these three elements seek each other and unite together; for in the seeing of divine things, as the completion of faith, is involved the notion both of truth and of beauty. Art, therefore, when it presents to the eye the beautiful and the

1 As has since been shown by Bachofen, Über die Gräbersymbolik der Alten, 1859. Cf. Gerhard, Das Ei auf Kunstdenkmälern, in the Archäol. Anzeiger, 1859, p. 58.

2 Plato, Symposium, p. 211.
sublime, thus proclaims truth in its aboriginal form. A glance at one of the wonders of Christian architecture, and a poet’s utterance, may serve to confirm this. In view of the Strasburg Cathedral, Goethe invites us not only to draw near and recognize in the soul of the artist the deepest sense of truth and of beauty in the proportions; he recognizes also in the structure a monument of eternal life in the master, and confesses that before this work, as before every great thought of creation, is stirred in the soul whatever there is in it of creative force. Thus then is expressed the mystery of art, that it is the divine made real to sense. And we should have to deny the work of art as well as the artist, if we would not recognize in both the testimony, nay, the presence, of Him to whose honor it was erected. It is objected that divinity cannot merge itself in the individual phenomena with which art has to do; or, as David Strauss says, that it is not the way of the Idea to pour out all its wealth into one copy (speaking of the person of Christ). But just the opposite is true, as may be proved even from history and in the times before Christ: in creative epochs a new beginning is marked by a fulness of endowment in one person. This is forcibly expressed by the Greeks, respecting the beginning of their poetry, in the epigram: “Nature mused long, and created; and when she had created, she rested, and said: One Homer to the world.” And it is now no longer heresy to return to a belief in the essential unity of the Homeric poems. We need not then engage in the controversy respecting the validity of the same law in the history of revelation. But another summit of Christian art may serve as testimony—a work like Raphael’s Sistine Madonna, which in its kind stands alone, marked by the loftiness of the mien of the virgin and mother, by the unfathomable depth in the eyes of the child. This the artist never could have painted, if it had not stood before his soul; he could not have had it in his soul, if it did not exist in truth.

It would seem wise, therefore, to bring such witnesses before the youth; to conduct them to the Strasburg Cathedral, or to some other one, to the Sistine Madonna, or another one, in order to implant in their hearts the seeds of supertemrestrial beauty.

3. A third claim can be made upon the schools, growing out of their duty to the nation to educate the youth up to the degree and the quality of culture attained by the nation. The proposition will not be contested, that the state of a people's general culture depends, on the average, on the stage of culture attained at the close of the last year in the gymnasium or in the equally advanced polytechnic schools. All men of culture take this course; many go from these schools directly to their particular vocation; and at the university the most devote themselves at once to their special department, so that the advance here made is chiefly in particular lines of study rather than in general culture. Hence results the converse claim on the schools that they make their course of study harmonize with this culture. Thus of late the natural sciences, and subsequently modern languages, have obtained an important place among the studies pursued at the gymnasium. Now, however, interest in monuments of art has become more and more a factor of general culture both in Germany and in other enlightened countries. This is shown by the ambition to erect statues in memory of the great men of the present and the past. It is manifested, furthermore, in the collection of antiquities and the erection of art museums, especially those designed to exhibit objects of national interest, and to be enjoyed by all, even by the working classes. For the latter object, the Kensington Museum at London was founded, and in Berlin the Royal Museum is opened even on Sundays. For the former object, there was not long ago established in the Louvre the Musée des Souverains, in Munich a Bavarian National Museum, and in Hanover the Welfen-Museum.

The schools, therefore, cannot exempt themselves from the duty of awakening and cultivating an appreciation of the
monuments of art, so long as it is expected of every cultivated man not to be a barbarian in this sphere. Following a like standard, we should certainly be surprised if scholars could leave any gymnasium without having heard during the whole course of instruction about America and its discovery. But what shall be said when schools send out young men who have never heard of another world, which stands before everybody's eyes and contains the noblest works of genius of thousands of years; or who, though the names of Phidias, Erwin, and Raphael may have been handed down to them, yet have not traced out the footprints of their genius?

Here, however, we are met by the objection: "Art, likewise Christian art, is a subject which cannot, like grammar, be imposed upon all men, but must be more or less left to the devoted action of those whose vocation it is." This is certainly true, if the question relates to a virtuosoship in the understanding and explanation of works of art. But for the measure to be attained in the schools, the difference of natural endowment is of secondary consequence, just as in the case of mathematics it does not prevent the course of study from extending even into the higher sphere. And yet the language of art, which, far from involving mathematical abstractions, everywhere lets the mind appear in a sensible form, is incomparably more comprehensible. Nay, it is comprehensible by every man, as both history and daily experience testify. For the noblest works of art have always been publicly exhibited, for the very reason that they can be understood, at least felt, by all. The Jupiter of Phidias was for everybody, else the Greek who had not once in his life come to Olympia to see it, would not have been pronounced unfortunate. On the other hand, it is seen that the works of art present food for study to men in every period of life, since, according to the subjects and the mode of treating them, they may be studied even in early youth, and yet constantly present new themes for study to one in mature years. Accordingly they are suited to serve as a
means of culture in all stages of an educational system, and further still. This fact, while it strengthens the claim that the study of monuments should be organically incorporated into the course of study, facilitates the execution of such a plan.

II. If this is conceded, the question next arises: What place in the course of study should be assigned to the study of monuments? And here we meet at once the objection that the gymnasium is already overburdened with studies, that there is therefore no room for new ones. This objection may be obviated by the statement that no claim is put in for the introduction of an independent branch of study, and for assigning a number of hours especially to it — to which arrangement this study is at this stage not adapted, and could be thus conducted only in exceptional cases — but for a connection with the existing course of study, so that the question does not so much concern the matter as the method of the instruction. The claim is, that the study of monuments has a place in all the principal departments of study except natural science — in the teaching of languages, history and religion; not as a sort of appendix, or as a topic to be incidentally touched upon, but as one to which these branches of study, from their very nature, lead, and through which alone they can be methodically completed.

1. Of these three branches, the study of languages most of all leads to that of monuments.

For, instruction in the classical languages, although it starts with the grammar, does not stop with the mere form of the language, but the great writers of antiquity are selected and read for the sake of the contents, and not only for their thoughts, but in order by means of them to gain an insight into the whole civilization of antiquity. But, this being so, the monuments of art constitute a series of subjects entitled to equal attention with the monuments of speech. And even when the former cannot yet be studied by themselves, they need still to be considered in connection with the latter. True, it is seldom the case that these conduct directly to
works of art, as e.g. Cicero in the Verrini;\textsuperscript{1} for the principal writers of this class, Pausanias and Pliny, are generally not read at the gymnasia. But works of art run parallel with the productions of poets; these are in various ways mirrored in those, nay, are in turn even influenced by them. And monuments are continually coming to light which bear testimony to this point. How could one better understand Homer and the tragedians than when he finds them illustrated by these works?\textsuperscript{2}

In the educational use of monuments of art the ancients themselves seem to take the lead. Well known are the various remains of Ilian tables on which scenes from the Trojan war are pictured, with a brief statement of the corresponding passages in Homer. The greatest and best preserved monument of this sort is in the Museum of the Capitol, comprising Homeric and post-Homeric themes, among the latter the departure of Aeneas for the west made prominent, in order to glorify the origin of the Julian race; it was found near Bovillä, in the ruins of a sacrarium which was erected to the Emperor Augustus soon after his death. It may have served to instruct him, inasmuch as, according to a view widely held, all such tablets were designed for the use of the young. In the same place was found the Apotheosis of Homer: the poet sitting enthroned, while the inhabited Earth crowns him with wreaths, ever-during Time publishes his praise, and all the streams of poesy spring from him. This monument has, by a galvano-plastic method of reproduction, been made accessible to all. The contemplation of both these works would seem fitly to close the reading of Homer in the schools, especially as the first also presents continuations of the scenes, drawn from the epic cycle. These are, to be sure, late productions. But the chief one, in the making of which a

\textsuperscript{1} The subject is treated in a prospectus of the gymnasium at Jever by Professor König, "De Cicerone in Verrinis artis operum aestimatore et judice."\textsuperscript{2} Cf. Friedrich's Winckelmann, 1862, p. 14, where the expectation is expressed that the idea of Winckelmann, to interpret and illustrate passages of ancient writers by means of monuments, will work its way even into the gymnasia.
description by the poet (Iliad i. 528 seq.) was before the artist's mind, as he himself testifies, is the Olympic Zeus of Phidias; and, since the nearest approach to this, although a remote imitation, is found in the bust of Jupiter by Otricoli, and a painting from Pompeii, which represents the god on a throne and Victoria crowning him with a wreath, it would seem that casts and copies of these works would be suited to illustrate the poet's idea when this passage is read. Quite as striking is the opposite relation, seen in the case of the tragedians, that a work dating from the remotest antiquity furnishes a theme for their description; I refer to Niobe, especially described by Sophocles in his Antigone (822 seq.) whose fate he compares to hers: "like her who of old was petrified on Mount Sipylos, visible in her stony grave, forever shedding tears." But the image on the north side of the Sipylos, described by Pausanias and recognized by modern travellers, is hewn out of the natural rock—a sitting matron of colossal size, with an expression of grief, the head gently inclined forward and to one side, the hands laid together on her lap. A photograph of it, lately arrived, proves that it cannot be considered a freak of nature. As now the legend mentioned by Sophocles is connected with it, so that image conducts us to one of his sources, and to one of the most remarkable points in the history of religion. As an example of corresponding artistic representation for the two other tragedians from lately discovered or lately explained monuments, we might point, in connection with Aeschylus's Persae, to the great Darius vase of Canosa, which, in the upper part, represents the assembly of the gods with the figures of Hellas and Asia, in the middle part, Darius with his chiefs, and in the lower, subdued nations; yet this would be less to the point, for it was an error to derive this conception from that drama. Nevertheless it may serve quite well as an illustration of it, since it pictures two of

1 Stark, Niobe, p. 42 seq., 98 seq. 442, with copy, Table I.
2 Gerhard, Archäolog. Anzeiger, 1862, p. 349.
3 As Minervini insisted on doing; vid. on the other hand Welcker in the
its leading thoughts: one, by the figures of Hellas and Asia, the latter sitting before her threshold, on the point of commencing an attack on the other (respecting which the assembly above is deliberating), while in Aeschylus, in the dream of Atossa, the consequences of an aggressive war of Xerxes are manifested in the same figures; another, by the relation of Hellas, who, threatened and distressed, is put under the protection of the gods, chiefly of Zeus, also of Nice and Athena. This conception of their guardianship and immediate interference runs through all the poetry as well as the history of the Persian wars; and accordingly a grand expression is given to it on that vase by the hand of art. On the other hand, a clear agreement is recognizable between a drama of Euripides, his Phoenissae, and the reliefs of a sarcophagus of the Villa Pamfili, which presents to the eye the three most important parts of the piece in the same succession: the meeting of the brothers and the fruitless mediation of Jocaste; the combat, which ends with the death of the leaders, of whom in the relief are particularly distinguishable Kapaneus climbing up and Amphiaraoes descending, also the brothers murdering each other; finally, the command not to bury Polyneices, to which Antigone will not yield — instead of which in the relief, corresponding to the further fiction of the poet in a piece now lost, the burial by night is itself represented.

2. The second place in which monuments should be introduced into the course of study, is the department of history, the extent of which in all the stages of academic life furnishes so much opportunity for the use of this aid. And its importance here is least contested, and its claims most regarded. Let me only point to the boundary line of the ages, the turning-points both in secular and sacred history, marked by


2 Shown by Petersen in the Archäol. Zeitschrift, 1861 p. 195 seq.
the fall of Judaism and of heathenism; and to the monuments still standing as lofty witnesses of those events in the ancient capital of the world: the arch of Titus and the arch of Constantine. Copies and photographs of them (the Christian Museum of Berlin has some which for ten years have continued unchanged) are so abundant as to make it possible to impress on scholars a conception of these most remarkable of all works of architecture and sculpture.

3. Less generally acknowledged, yet still more important, is the like claim which may be made in behalf of religious instruction, to which two hours weekly are wont to be devoted throughout the whole academic course; Bern forms an exception, only one hour being allowed. But that time too is so precious that no one would wish it infringed upon by the introduction of foreign matter. The works of Christian art, however, are not foreign to this subject, but intimately connected with it, inasmuch as they testify through so many centuries to the perpetual vigor of Christian inspiration. And, far from contracting this instruction, they add to it an enlivening element, and serve to lighten the responsibility of the teacher.

For this responsibility is indeed greater here than anywhere else. The instruction must everywhere begin with the contents of the Bible — history and doctrine. In the higher stages it advances to the history and doctrine of the church. How can the teacher deem himself equal to the task of making this massive material the property of the youth? Certainly not by a mere traditional communication, as the rules of grammar may be taught, although even this is of no use unless there is also present the linguistic spirit out of which the rules have grown. But especially in the sphere of religion must that which is to penetrate the soul and produce life, itself have life and soul. If now the teacher, having no resource but his own gifts and attainments, distrusts his ability to satisfy the religious needs of the rising generation and to exercise a decisive influence on their lives, he may call to his assistance the gifts of the church, especially the...
helps to devotion and insight afforded by her creative epochs. That is done in fact, to mention one example, when he communicates the devotional products of her lyric poetry, the songs of the old heroes of faith. Together with these present themselves the works of the plastic arts, which however have a much wider field, for they embrace in their countless specimens the whole biblical history, and extend even to all the main points of the body of doctrine, since art is able to symbolize even the most ultimate ideas. And, different as are the means employed by art in different periods, yet at all times is to be traced in the works of Christian art the piety of their authors, which cannot fail to exert a quiet and enduring influence. How this helps in the work of instruction, deserves a closer consideration. At present I would dwell on only two points, which concern the basis of this and of every department of religious instruction.

The first point is, that sacred history and the history of sacred doctrine are identical, because faith is completely bound to history. This is illustrated by a gypsum cast of an ivory box belonging in the Royal Art Hall at Berlin, and dating from the fourth century: Christ is seen sitting among the twelve apostles; and, as his attitude (in his left hand a scroll, his right raised) and the grouping indicate, he is teaching; but what is he teaching? On the opposite side of the cylindrical vessel is represented the offering of Abraham, which in its relation to the first-named representation affords a most simple example of geometrical symbolics: it is the circle with its points standing over against one another, separated by the diameter, but united by the curved line. So then the offering of Isaac by Abraham, different as being typical, yet kindred, exhibits the sought-for subject of the instruction, namely the person and work of the Redeemer according to John iii. 16. What is here only typically suggested, is presented as reality in another monument, a bronze crucifix of the twelfth century, formerly in Lüneburg, of which the pedestal is still preserved. Resting on four lions, it has above it a canopy, and signifies, according to
the inscription, the terrestrial globe. Upon the top of it lies Adam in a coffin; angels are removing the lid. This is made intelligible by a legend, full of meaning, and widely spread throughout ancient Christendom, in the Grecian church universally adopted, that the first man was buried on Golgotha, in order there to be redeemed by the blood of Christ and to be awakened from death. This is expressed in this monument by the relation of the Crucified to Adam rising out of his grave, as the inscription also declares: Adae morte novi redit Adae vita priori. The same conception with an inscription to the same effect I have found at the foot of a crucifix in the cathedral at Chur. In the first man, however, the whole race is included; there are therefore represented in these pictures the chief epochs and fundamental facts in the history of the race, with their connections, beginning, and completion — the fall, death, and redemption.

The second point is, that dogmatics and ethics are identical, in so far as they have a common root. This is likewise shown in numerous representations of the Crucified, which are encompassed either by the three theological virtues (faith, love, hope), or the four cardinal virtues, which are referred primarily to him. In illustration of this may be mentioned a work now in the Welsen-Museum. It is a gold-foil paten, belonging to Bishop Bernward, dating therefore from the beginning of the eleventh century, afterwards reduced to the form of a pyx, with figures engraved in it: in the middle, Christ on the rainbow showing his pierced hands, with the inscription: Huc spectate viri, sic vos mortiendo redemi; around him, alternately, the symbols of the four evangelists, and, in the form of female busts, the cardinal virtues. These figures too refer primarily to the person of the Redeemer; but, the vessel being designed for use at the

1 This pedestal is copied in Vogell: Kunst-Arbeiten aus Niedersachsens Vorzeit, H. I. Bl. 3, 4. Vid. also my dissertation: Adama Grab auf Golgotha, in the Evangelische Kalender for 1861, p. 27.

Lord's supper, they have a significance also for believers, who, if they show forth the death of Christ (1 Cor. xi. 26), ought to believe his word, and to translate their faith into deeds (Gal. v. 6; Jas. i. 22). So they are admonished by the apostle Peter, in opposition to those who are disobedient to the word, to show forth the virtues of him who has called them out of darkness into his marvellous light (1 Pet. ii. 8, 9), which passage is to be regarded as the theme of this art representation.

Finally, as regards church history and its monumental sources, the latter are as necessary for purposes of illustration as in the study of profane history. And not a few monuments belong to both branches; as, e.g. the two above-mentioned arches in Rome mark an epoch in church history as well as in profane history. In connection with these great architectural works we may mention a small work of sculpture, of native origin, which points out not an end, but a new beginning: a monument of the foundation of St. Gallen in the lower leaf of an ivory table dating from the ninth century. In the middle are seen the cross with the relics, as the first sign of the foundation of a monastery; then the bear, which at the command of Gallus is bringing wood to the fire; and Gallus, who gives him bread with the order to avoid the place and retire to the mountains; — according to a pretty legend of St. Gallen. A small beginning, which yet involves the germ of a great historic fact, that by these pious monks, where they erected the cross, the wild beasts were frightened away, deserts were made arable, and their cells became the nurseries of human culture, from which flourishing cities sprung.

III. Having pointed out, in the course of study, the place where the contemplation of works of art should be introduced,

1 Of the whole diptychon there is a cast in the Christian Museum in Berlin. It is copied in one of the New Year's issues of the Historical Society of St. Gallen, under the title: St. Gallen I. 1863. The above-mentioned division of one table is copied and explained in my essay, Die Herrschaft des Manschen über die Thiere, in the Evangeliache Kalender for 1860, p. 35.
we may in conclusion add a word respecting the execution of the plan, in relation to the requisite apparatus and the teachers. But before attempting to indicate what is needed, we will first take a view of what we already have, considering the present position occupied by these studies in the schools of learning— as to which my report must be based on what little has been published respecting it, and on what I have learned by personal observation or by correspondence.

1. As to the apparatus of instruction, the most favorably situated institutions are those in capital and university cities, where there are either large public collections or at least art museums to meet the necessities of classical philology. In Germany such collections are unconditionally accessible to the gymnasia, e.g. in Berlin, Stuttgart, Gotha (where the control of both is in the same hands), and other places. In Switzerland, where the collections belong to the capital city, but the schools to the canton, it is required that for the use of the educational apparatus belonging to the city the participants must pay an annual contribution, or the canton must pay it for them. The majority of the gymnasia, however, are in a different position, and are restricted to their own educational resources; but these are almost everywhere deficient. And a noteworthy collection of Christian monuments for the purposes of instruction in history and religion seems nowhere to exist.

The use of such collections, especially the immediate employment of them in imparting instruction, is of course greatly facilitated when they are the property of the gymnasium and are kept in its buildings. This convenience being almost universally lacking, the scholars in the upper classes in many places, where an opportunity is presented, are conducted to the collection of antiquities belonging to the state or the university. And testimony is given to the lively interest which is wont to be excited by this inspection. In this connection it should also be insisted on that the noble works of mediaeval architecture should not be entirely neglected in
this department of instruction. In Marburg the scholars of the upper classes are sometimes taken by Director Münscher to the Elizabeth Church, a gem of Gothic architecture; and in Stuttgart last summer Professor Wintterlin undertook an excursion to Maulbronn with the members of the second senior class, "in order to give them at least the fundamental ideas of the Roman and German architecture, and create a desire for independent study in this direction."

2. The apparatus of instruction being thus found to be deficient, while yet the need of it is acknowledged, the question follows: What shall next be done? And the answer is obvious. Just this educational apparatus, that is, the foundation of art collections, both classic and Christian, must be procured for the gymasia. The proper selection is indicated by the object, and can involve no difficulty. The limits to be observed are moreover obvious. But for the modest claims which the cause makes, both money and room are doubtless everywhere to be had. As to the latter point, whenever a new building is erected, it is easy to provide a special room; in other cases, it will always be possible to set up a few gypsum casts, which even tend to ornament any hall; at least every school has a library room, where they might find a place. Furthermore, the matter of expense can hardly be anywhere a hinderance. The well-endowed educational institutions have such considerable funds for the means of education, both for the library, and in particular for the purposes of natural science, that a proportionate endowment for the purposes of the study of art is only a demand of justice. But even when the receipts are less, the arrangement need not fail to be made through lack of funds, since with the present means of multiplying wealth much can be attained by little, and the beginning is that on which everything depends. The most favorable circumstance for appa-

1 A sketch of a plan for the arrangement of a collection of works of Christian art for schools has been given by me in the essay, Das christliche Museum der Univ. zu Berlin und die Errichtung christlicher Museen für die Schule und die Gemeinde. Evangelischer Kalender for 1857, p. 69 seq.
ratus of this kind is, that, when extraordinary expenditures are needed for any cause, the good will and active interest of the public are most easily enlisted in it.

It may be more difficult in general to find for this branch of instruction the requisite ability to teach — teachers who are at home in the various departments; and I have heard from various sides the difficulty urged, that many gymnasia, in one respect the most of them, are in this feature deficient. And truly what has long been neglected cannot be made up in a moment. Still, where the former demand is met, this requirement will also be satisfied to a reasonable extent, if the claim is fulfilled, that the teachers should not stop with the education obtained at the university. This would imply, in relation to the question before us, that among them both the representatives of classical philology and the teachers of religion, if they have before made themselves familiar exclusively with the literature, should educate themselves further in the monumental branch, of their science. With regard, however, to the filling of vacant places, there are doubtless in the department of philology young men everywhere to be obtained, who are also trained in archaeology. Very favorable for this purpose is the Prussian stipend, established in 1860, which furnishes annually two able young philologists with means to complete their archaeological studies in Rome. A deficiency is more likely to be found in the theological department, owing in part to the faculties, which in monumental theology have been to some extent guilty of dereliction to duty. But if only the gymnasia demand from the universities teachers thus trained, they will soon be sent. For the inward impulse of science, when united with such an outward demand, works in all directions irresistibly.

And this working will also be traceable in the youth. In their instruction, importance should be indeed attached to the matter which they are required to learn in this department, though with the difference that, while at the university it is presented in its proper connection, it comes up in the schools more incidentally and by way of applica-
tion. But the chief advantage of this study I would seek in its moral effect, that there may be awakened in the youth a reverence for the world of mind which is stamped on the monuments of ancient and modern times, and a desire to obtain possession of this wealth; that this desire may spring up as a germ, to find in more mature years full satisfaction.

ARTICLE VI.

CAUSE AND EFFECT.

BY REV. JOHN BASCOM, PROFESSOR IN WILLIAMS COLLEGE.

It is not uncommon in philosophy to build structures on foundations whose existence is denied. His action, who, mounted on a pyramid of boxes, requested his companion to pluck away the first and pass it up, that he might by means of it climb higher, though too coarse a joke for practical life, is often realized with the more subtile, illusory supports of metaphysics. The juggler, at the end of a surprising performance, shows his hands still tied as satisfactory proof that he has had no part in it; yet remove him bodily and his tricks are sure to go with him. Many a fine-spun philosophical theory is indebted for its very existence to faculties whose function and office it is its chief business to disprove. Bind the mental powers beyond escape that have played an unobserved part in the construction of these hypotheses, and they would lose all coherence and firmness, and pass from sight like vapor.

The illustration of this class of theories which we have more particularly in mind, is that which denies the validity of the notion of cause and effect; which regards it as merely the unverified force assumed in explanation of the observed fact of stated antecedents. Sequence is all that is seen, all that is known, and any notion of a necessary link between