RECENT ARCHÆOLOGICAL RESEARCHES IN ROME.

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I HAVE already given a short account of the excavations and explorations made in Rome during the last season, with the help of the Exploration Fund; but as I am now able to give some further particulars, I will give a *résumé* of my labours. The first thing to be done was to complete the great map of the aqueducts from Subiaco to Rome, which I had initiated in April, 1869, when I went to Tivoli and Subiaco with Signor de Mauro, a young Roman engineer of good reputation whom I had previously tried and had found careful and accurate, and Dr. Fabio Gori, a learned archæologist and a native of Subiaco, who had long studied the aqueducts, and had walked along the line from Subiaco to Rome with that object. I had long been trying in vain to understand the system of the aqueducts, and to distinguish the different lines described in the admirable work of Frontinus; I had obtained all the best maps that were to be had, and the best works on the subject, and the personal assistance of others who had studied them. But I had found it impossible to understand them, or to trace the different lines, without having a new map made for the purpose. During the week that I was with the gentlemen I have named I saw the difficulty of our task, and that it was a work requiring time and patience, and a great deal of real hard work, and often rough work too in difficult ground. I also saw that my two companions and assistants entered thoroughly into the spirit of the task, and could be relied on. I have every reason to be satisfied with the work now it is done, and see that the object aimed at has been attained. The aqueducts are now to be understood in a manner that they never could have been before. But they are a subject for a separate lecture, and could not be explained in a few sentences. The subject is well worthy

of attention. Rome was better supplied with water than any other city in the world, and engineers may well study the system. I may mention that the municipality of Paris has purchased a complete set of my photographs of the aqueducts, and my map, for the use of the water department of that city.

For strictly archæological objects, also, it is impossible to understand the antiquities of Rome without paying attention to the aqueducts; there are remains of them in all parts of the city often little understood. We have now traced them from their sources to their mouths, not only up to the walls of Rome, but through Rome to the various reservoirs where the water was distributed, and eventually to the Tiber, into which the surplus water was discharged.

In one of my excavations this spring I found a cave under the Aventine, near S. Sabba, where five of the aqueducts met, discharging the remaining water into one, the Appia, the oldest and the lowest. Each successive aqueduct was carried at a higher level than the preceding, and in the neighbourhood of Rome they cross over one another on different arcades, very much like the railways near London. Like them, also, they are sometimes under ground, in tunnels, then in a cutting, then on the surface, then on an embankment, and then on an arcade. The aqueducts have also an angle at each half mile to break the force of the water, with a reservoir and filtering place at each of these angles. The enormous number of these reservoirs, or *Castella aquæ* as they are called, is the great characteristic of the Roman aqueducts. The latest and most important of these reservoirs, which were also called Lacus or Lochs, are part of the river Anio itself, dammed up for the purpose in a gorge of the rocky mountains through which it passes above Subiaco at about sixty miles from Rome. Here the engineers took advantage of a natural cascade, and built an artificial one at a considerable distance in front of it, but still in the gorge of the rocks, and made the river fall over the great wall they had built for the purpose, the interval between the two being the reservoir, about a hundred feet deep. Near this spot the two great monasteries of S. Benedict and S. Scholastica were afterwards built, amid some of the most picturesque scenery in the world.

For the last seven miles into Rome, from the great Pis-

cinæ or filtering places, where the conduits emerge from the tunnels in the hills, the aqueducts were carried upon two arcades over the flat and level country. The earliest of these was the Marcian arcade, on which the conduits of the Tepula and the Julia were also carried. This arcade ran over the line of the Anio Vetus, and the Aqua Marcia had followed nearly the same line from its source near Subiaco, but the Tepula and the Julia were only added to it at the Piscinæ, and came from a different direction towards Albano. The Aqua Claudia and the Anio Novus were carried on a second arcade parallel to the other at a short distance from it, and crossing it from time to time at one of the angles.

From the Piscinæ the little river called by many names, and amongst them the Almo, winds about the foot of the arcades, now on one side, now on the other; and into this stream the surplus water from the aqueducts in time of floods was carried. We must remember that the later aqueducts were branches of the river Anio itself, which was dammed up to serve as reservoirs for them, and therefore were as liable to floods as the river itself or any other mountain stream. The Almo is also liable to its own sudden floods, and this also is a mountain stream coming from the hills between Frascati and Albano. In the course of my investigations of the aqueducts I discovered that this little river is divided into two branches, at about three miles from Rome, near the Torre Fiscale and the fine ruins of the villa of Septimus Bassus, called Sette Basse and Roma Vecchia. This division into two streams had not been observed before, and it is an important discovery, as it explains several difficulties in the historical topography of Rome. One branch of the Almo runs through Rome, and is commonly called the Marrana, which is only a general name for a small stream of running water. This branch has been made into a canal or mill-stream, and is carried across low ground in a bank of clay, with lochs[1] and lashers to carry off its surplus water, so that there should be no possibility of a flood of

[1] One of these *lochs* continues in use, near the Torre Fiscale; there are remains of another, not now in use, two or three miles farther from Rome. The deep fosse or bed of this small river winds about the Campagna for many miles. It is commonly dry, but after rain a strong stream of water runs in it, and all these channels unite at the head of the valley of the Caffarella. Every one who knows Rome must have observed these deep water courses; but few have followed them up and ascertained that they are different branches of the same river, which is called by many names, one of which is the Almo.

this stream in Rome, and at the same time there should always be a supply of water for those mills in Rome and in the Campagna near to it, which were also supplied by this stream. It enters Rome under the Porta Metronia, passes through a mill in front of the Botanical Garden of the city, then between the sites of the *Porta Capena* and the Piscina Publica, and through the Circus Maximus, where it also passes through another mill on the site of one of the curves of the Circus, and through the gas-works on the site of the Carceres; it then passes through two other mills, one near the church of S. Maria *in Cosmedin*, the other on the bank of the Tiber, built upon and against a part of the *Pulchrum Littus* of the Kings of Rome. This is a fine wall against the bank of the river, built of large blocks of tufa, as usual at that period. In this wall an opening is left for the river to pass through, and this was evidently left at the time the wall was built, and not cut through it afterwards. This is an important point, because it shows that the level of the stream at its mouth has not been altered since the time of the Kings, and that the level of the Tiber has not been altered. From the winding course of the stream it is evidently natural, although it has been raised on a bank of clay in many parts, and the quantity of water that flows through Rome is regulated by lochs. There is reason to believe that this was done in the time of the Emperor Tiberius, from a passage in Tacitus recording deputations to that emperor for and against altering the course of the rivers to avoid the floods which then, as now, did so much damage in Italy at times. But the farmers on the line of the principal rivers said they should be ruined if the course of the rivers was altered. This small river may probably have been regulated at that time when attention was called to the subject. That it had not been done in the time of Cicero is evident, for in one of his letters he describes the mischief that was done by a flood of this stream, which carried away several wooden shops or booths from the bank in front of the garden of his son-in-law, Crassipes (now the Botanical Garden), and took them as far as the Piscina Publica, that is, from south to north exactly along the line of this small stream. The Tiber runs from north to south, and a flood of that river would have brought them the opposite way.

It is time now to mention the other branch of the Almo,

the one usually so called,[2] which runs through the valley of the Caffarella, and has its mouth near S. Paul's. I have traced this back to the loch before mentioned, where the old foss or bed of the river remains deep in the soil; and when the water is high, it runs freely over the lasher into and through this bed, and during floods covers the country round for miles, but at other times, in dry weather, this deep bed or foss, as it is called, is often dry, so that the stream is intermittent for three or four miles. But near the church of S. Urbano, other springs fall into this deep bed, which never fail, so that, in the latter part of this branch of the river, water is always flowing; and this has caused people to overlook the junction or division of the river into two branches.

We again hired some of the cellars under the houses on the Via di Marforio, which we had ascertained to be chambers of the great Mammertine prison. Here we made considerable excavations, and found two doorways below the level of the present floor, which is itself nearly twenty feet below the level of the street. We found this floor to consist of a bed of that peculiar kind of cement that resists the passage of water or of moisture which was used for the aqueducts in the time of the Emperors, but was not used afterwards, and the exact composition of which is not known, but it is believed to be a mixture of pounded clay and fresh burnt lime. It is called by Vitruvius, *opus signinum*, and by the modern Italians, *coccio-pesto*. Under this floor of cement we found about ten feet of earth, and then the original pavement, covered with a foot or two of water. It appears that the floor was raised in the time of Tiberius, when the prison was repaired and restored, as is recorded on an inscription on the other part of it called the Prison of S. Peter, which appears to have been the vestibule of the great prison. It is a curious coincidence that in the time of the Republic complaints are extant of the hardship of being thrown into a cold bath at the same time as into prison. It was probably to remedy this evil that the floor was raised.

The next place in which we obtained leave to work was in the great vineyard of Prince Torlonia, on the Aventine,

[2] S. Gregory the Great, writing in the sixth century, calls the stream which has its mouth near S. Paul's by the name of the Almo. If this is the Almo, the other branch of the same stream must be the Almo also.

between S. Prisca and the Porta Ostiensis or S. Paoli. The prince behaved very handsomely to us, and gave us permission to do what we asked for, and further made us a present of the ground we had excavated, with permission to leave it open permanently for the benefit of future antiquaries, instead of being obliged to fill it up again immediately, which is the general custom in Rome. The place where we began was at a fine piece of the wall of the Kings, on the cliff at the south-east corner. Canina had begun to excavate here about twenty years before us, but he had only gone down about half the depth, and had not shown the thickness or the construction of the wall in that part. We found the existing remains 45 feet high and 12 feet thick, and the wall had been probably 60 feet high, as the upper part is wanting; it only remains up to the level of the soil. It rests at the bottom on a ledge of the tufa rock, cut away for the purpose; and there is little doubt that the wall is built of the blocks of tufa cut out on the spot. In part of the wall, near the angle, two arches have been inserted, one of which remains perfect, and is of nearly the same early character as the wall itself, built of large blocks of tufa, but of rather different quality and of a reddish tinge, dug out of a quarry near, under S. Prisca, through which the aqueduct passed. Behind these arches is a mass of concrete forming a platform, on which it appears that a balista or catapult was placed, and that the arches served for embrasures, as for modern cannon. For this suggestion I am indebted to Visconti, and it appears a probable one. It has been conjectured also, with apparent reason, that the additional fortifications were made at the time when Hannibal threatened Rome. This was an exposed corner, as there was no outer wall or line of defence in this part until the time of the Emperor Claudius. It was a fort to defend the approach to an important gate of the city at the outer angle of the gorge, at the inner extremity of which was the gate, where four roads meet, and where the aqueduct passed. On the opposite corner, under S. Sabba, is another fort, now mutilated, and appearing to be built of concrete only, in layers. By excavating at the foot of this, however, we found remains of the facing of large tufa blocks as in the other fort, only in the upper part they had been carried away for building purposes.

In front of the wall first mentioned, near S. Prisca, are remains of the great foss filled up in the time of the Republic or early empire, and in the loose earth with which it is filled up are four deep pits, like wells. We at first thought they were wells going down into an aqueduct, as is common in Rome; but on getting to the bottom of one of them we found this was not the case. They descend to the ledge of rock before mentioned at the bottom of the wall and of the foss. In the walls of these wells, which are of rough stone, holes are left for a man's foot, to enable him to go down, probably to clear them out when required. These pits are just within another wall of concrete, faced with *opus reticulatum*, or the reticulated work of the time of Trajan, believed to be part of the remains of the Thermæ of Sura, the cousin of that Emperor. Just below these, and passing through the great wall of the Kings, is a brick drain of a few years' later date, the brick-stamps giving the date of A.D. 130. The walls of the Thermæ are built in an oblique direction against the old wall, as if the builders were ignorant of its existence, or entirely disregarded it.

In the same large vineyard, at the further end of it towards the Tiber, but still on the high ground at the top of the hill, stands the house of the Jesuit gardener, usually called Dom Giorgio. It is a mediæval building, of very picturesque character. We had been recommended by Prince Torlonia to make friends with the Jesuit gardener, and we had done so, and he told me one day that in the cellars under his house, there was some old work that he thought might interest me. We accordingly lighted our tapers and went down to explore at a considerable depth; I at once saw that we were in the subterranean chambers of a house of importance of the time of Trajan. There were long corridors and many chambers; the walls of which were of the construction of his time, of brick and reticulated work, and one of these chambers has fine fresco paintings. These were filled up with earth nearly to the top, but we had it all excavated, and drawings made of it by Signor Lanciani, one of the best architectural draughtsmen in Rome. The painted chamber is not very large, but very lofty. These chambers are evidently part only of an extensive mansion; another part, near this, was found when a fort and battery were making there in 1868 and 1869;

at that time I saw the opening into it, but a ladder was required to have gone down into it, and the soldiers would not permit me to explore it. Remembering that the Catalogue of the fourth century places the private house of Trajan on this hill, and that we have no other traces of an important house of his time, there can be little doubt that these are remains of that house, and that it was connected with the Thermæ of his cousin, Sura, now in the same vineyard.

Other excavations of some importance have been carried on in the vineyard of Signor Brocard, near the Via Appia, opposite to S. Sisto Vecchio, between the present road and the Thermæ of Antoninus Caracalla. In this vineyard are the remains of the porticus begun by Caracalla and finished by Heliogabalus, as a completion of the Thermæ. The word porticus appears to be used in the sense of arcade, not colonnade; at least no remains of a colonnade or portico of this time have yet been found. The authors of the time of the empire mention this place as one of the richest in Rome, and it is probable that more will be found in future excavations. What we have at present ascertained is that each of the arches of the great arcade was a *balnea*, or bath chamber; and in this part a large number of balneæ are mentioned in the catalogue. At the back of the arcade, near the top of the wall, is the *specus* or conduit of a branch aqueduct, to supply the baths with water. The ground at the back is quite 20 feet higher than it is in front; and the wall at the back of the arcade is left rough, and not intended to be seen. We excavated to the bottom of one chamber, and to the same level at the back of it: my orders to the navvies were to dig on till they came to a pavement or to water. They came to both, at the depth of 30 feet from the surface, at the back of the arcade.

The pavement we traced in an oblique line from the Via Appia to the house excavated by Guidi two or three years ago, miscalled the house of Asinius Pollio, but really (as I believe) the private house of the Emperor Hadrian, according to the Catalogue before mentioned. Here a fine mosaic pavement had been found, and the chapel of the Lares; but in consequence of the wet season it was all under water during the whole of this spring. This liability to be flooded was probably observed in the time of the early empire, and for this reason the Thermæ of the Antonines,

or Caracalla, were built on a higher level. The same may be observed in many parts of Rome: the old foss-ways were filled up in the second and third centuries, and with them the buildings on the same low level.

Some remains of a colonnade or the portico of a temple have been found in front of the arcade at the low level, at the back of the church of SS. Nereo and Achilleo; it may have been a small temple only. The work was stopped by water, but can be continued next season, if the necessary funds are forthcoming. Last year we found remains of another colonnade at the same low level on the opposite side of the Via Appia, in front of S. Sisto Vecchio. It may possibly have been that there was a series of colonnades of small columns parallel to the road on both sides here, and from them it was called the Xystus, a Greek name for such a colonnade.

Having now finished this account of the excavations in which I have myself been concerned, I propose to add some notice of what has been done by others during this season. The Germans, under the direction of Dr. Henzen, dug another pit in the grounds of the college of the Arvales, but found nothing. The Pontifical Government carried on their excavations at the Marmorata, and in their part of the palaces of the Cæsars on the Palatine Hill, under the direction of Visconti. Both were continuations of work previously begun. At the Marmorata, the new carriage-road on the bank of the Tiber to enable strangers to go and see the excavations, had been much damaged by a great flood; and during a great part of the present season the men were employed in repairing it. The actual work of excavation was then carried on for some distance further down the river, and a continuation of the landing places; and the inclined planes from them to the top of the bank or cliff was found as was expected. Some more large blocks of valuable marble were also found where they were landed. It is hoped that the government will carry on this work, under the direction of Visconti, as far as the wall of Aurelian, and that when Visconti has finished his new road, and the wall which separates it from the great vineyard of Prince Torlonia, in which the ruins of the Emporium are situated, that the prince himself will excavate the lower chambes of these great warehouses, of which the remains of the upper part only are now visible.

On the Palatine, on the side next the Circus Maximus, several more of the guard chambers under the great galleries were cleared out, and remains of walls of tufa in the style of the Kings were found in two places, going transversely across the hill. These indicate the two sides of the great foss or trench on the south side of the arx or citadel of Romulus. Other remains in the same direction have been found by Signor Rosa in the French part, between these and the Arch of Titus.

Visconti has also brought to light the remains of the Stadium, or place for foot-races, towards the south end of the Palatine, opposite to the monastery of S. Gregory. These remains are of considerable importance and interest; they belong to the third century, probably of the time of Commodus, and are exactly a stadium in length, with remains of terraces on each side supported on arcades, with columns attached to the piers, of which the bases remain. They are of large size, and built of concrete, faced with marble, instead of being of solid marble, as the earlier and smaller columns are. The Stadium is exactly like a small circus; the east end is square, and the west end rounded. At this end is the Exedra, or seat for the Emperor, which is back to back to his seat for seeing the Circus Maximus. There is another large Exedra on the south side, in the centre of the galleries. The walls of these at the back are double, with a narrow passage between the two walls, apparently for no other purpose but to keep the seats dry. The same plan and arrangement occur in the ruins of the buildings of the Ludus Magnus, against the cliff of the Claudium, on the east side, opposite to the promontory on which now stands the church of the Santi Quattro Coronati. Under the Exedra and the galleries at the north end of the Palatine are a series of chambers, some of them bath chambers, in which are paintings remaining, with a reservoir and conduit for water, which was brought across the valley from the Cœlian on an arcade, the remains of which are well known. Most of the remains of the palaces of the Cæsars on this part of the Palatine are of the third century; but some of them are earlier, perhaps as early as the first.

On the northern side of the Stadium is the Villa Mills, now, unfortunately, a nunnery. Under this modern building are a series of fine vaulted chambers of the first century, to which

I obtained access by accident only. There is no communication between them and the nunnery above, but because they are under it no one is allowed to enter them. They are the remains of an important building of the early empire, and a set of engravings of them was published in the last century under the name of the House of Augustus; but this name was given by conjecture only, without any authority; and although it has been, as usual, blindly followed by all later writers, it appears to me to be an erroneous conjecture. The plans and drawings are very incorrect: there are two fine pentagonal halls which are scarcely visible on the plan, and it was more probably the Penta-Pylon, which we know from the Catalogue was on this hill, and which has not hitherto been found; this is, however, a doubtful question. The accurate account of the house of Augustus given by Dion Cassius, one of our highest authorities, does not agree with this site; but I have more to say on this subject when I come to the French part of the hill.

The excavations made by order of the Emperor of the French, under the direction of Signor Rosa, during this season, have brought to light the underground chambers of an important house of the time of Sylla or Julius Cæsar, having small and very plain chambers, though numerous ones. At the north end of this house an addition has been made, in the time of Augustus, of large and fine chambers richly decorated with fresco paintings and other ornament, and a fine mosaic pavement. This house is called by Signor Rosa the house of the father of Tiberius, and the reason for this is, that a passage leads from it at the same low level as the chambers of the house itself, into the great passage from the state apartments in the centre of the Palatine Hill (over the foss of Romulus, when that was filled up like the other foss-way in the first or second century), to the great palace of the Cæsars or Emperors at the north end of the Palatine. But the whole of the Palatine Hill is undermined by such subterranean passages, some of which were made in the old foss-ways when the level was raised to the original height, as shown by the tufa cliffs round it, with early walls built up against them. Signor Rosa considers the great trench across the middle of the Palatine, which I consider only the foss on the south side of the Arx of Romulus, as a natural valley, or *inter-montium*, but this

does not appear to be probable. On both sides of the hill, in that case, the ox and the cow who marked out the boundary according to Tacitus, would have had a steep cliff to climb up or go down. It is far more probable that they included the whole of the Palatine Hill, with the Velia and the Velabrum, and that this space was divided into different parts—the Arx, the Town, the Slopes, and the half-detached forts to protect the principal gates, like other ancient cities of the same period,—whether Etruscan, or Latin, or Oriental, or Western—according to the custom of the age, at the period of the great earth-works everywhere.

All the three houses in which Augustus resided are described by Dion Cassius. He was born on the Palatine, but in a low part of it, on the slopes towards the Velabrum, opposite to the Capitol, in a street called the Ox-head Street, which must be the zig-zag street that leads down from the Porta Romana to the Forum Boarium, the Smithfield of ancient Rome. This gate was excavated by Signor Rosa a few years since (across which he has put a wooden palisade to prevent any one going through it, to carry on the survey of the whole Palatine Hill). This leads to the top of the Zig-Zag, and at the further end of this, at the first angle of the street, is the altar of the unknown goddess, still *in situ*. The next angle brings us behind the round church of S. Theodore, supposed to be on the site of a temple of Vesta. It then passes along the present road under that church, and against the lower cliff or in the wall under the Palatine, the heads of an arcade of the time of the Empire are visible: this part of the road has been raised about 15 ft. The house in which Augustus was born was probably nearly under the Porta Romana, between the round church and the remains of the bridge of Caligula from the Palatine to the Capitol. This house was made into a temple in his honour immediately after the death of Augustus, and we are told that the bridge of Caligula was carried *over it*, which was probably not intended to be taken literally, but that it was close to the side of the bridge, which was at a great height above it. One of the fragments of the marble plan appears to me to agree with this. Augustus next lived for a few years on the Capitoline Hill, by the side of the steps immediately opposite to the house in which he had been born. But after he became emperor, the senate insisted on his

living on the Palatine, as the proper place for an imperial residence. Augustus himself always wished to live as a private citizen only, and although he so far complied with the wish of the senate as to live on the Palatine, he merely bought the house of a private citizen called Hortensius, which we are expressly told had columns of Albano stone only, and was without mosaic pavement or other ornament. In this house we are also told that Augustus slept for the last forty years of his long life. But the senate were not satisfied—they thought this house too mean and poor for the emperor, and they insisted upon adding to it a porticus with mosaic pavement and other decoration. This was an addition made to the same house; the emperor did not change his residence. We are also told that Augustus chose this situation because it was in the Arx, and near to the house of Romulus; the Arx is known to have been the north end of the Palatine, and the house of Romulus was a wooden hut existing in the time of Augustus, in the Arx, near the north-west corner, and near to the place where the Church of S. Anastasia now stands. This is within a stone's throw of the house recently excavated, which I call the House of Hortensius. This account appears to me to agree exactly with the house now found; there is no internal communication between the porticus with the richly decorated chambers, and the older house behind it, which may very well be of the time of Sylla or Julius Cæsar, and therefore standing as an inhabited house when Augustus bought it. We are told, indeed, that there were plain columns of Albano stone, or "peperino" as it is now called. No such columns have been found here; but these would naturally be removed to make way for the richer work to be added to it. These columns were probably rough and faced with stucco painted, as is the case with some remains at Pompeii.

The interesting set of photographs published this season by Signor Rosa, showing these recent discoveries, are unfortunately made entirely from drawings, and he refused me permission to have any photographs taken from nature in his dominions. Photographs can only tell the truth: they would show the real construction of the walls and the junctions in the masonry, and all the details with an accuracy no drawing can equal. The very beautiful fresco paintings which Signor Rosa has found in the chambers are the

finest that have been found anywhere. They surpass even anything found at Pompeii; and his photographs do not and cannot render them full justice, though they are made from very clever drawings, and have deceived many of the purchasers into the belief that they were taken from nature, which is not the case. I do not wish to detract from the merit of the Emperor of the French in making these excavations, nor of Signor Rosa, who directs them skilfully; but all archæologists will agree with me in regretting that photographs from nature are not permitted to be taken. One of the reasons assigned by Signor Rosa was singularly unsatisfactory to me:—"He could not allow a photograph to be taken of this beautiful fresco in its present state till it had been restored and varnished." We should all much rather have had it in its original state before it was touched.

I am sorry to be obliged to mention another subject painful to us all,—the demolitions that have taken place during the present season by order of, or with the sanction of, the officers of the Pontifical Government. One of the gateways of the Emperor Honorius, of about the year 400, has been pulled down in order that the old stones of cut travertine might be used as a stone quarry to build the base of the marble column on the Janiculum, to commemorate the present Council. That column was found by Visconti at the Marmorata on the quay, or rather in an old dock, lying horizontally; and he published a flourishing account of it before he had excavated the whole of it. The length did not equal his expectations; it is very short in proportion to its diameter, and it was to remedy this defect that the old stone was wanted. The principle is the same as that which was in force when the Coliseum was used as a quarry to build the palaces of the Popes. Another piece of barbarism is the entire demolition of a considerable part of the great *agger* and wall of Servius Tullius, near the Railway Station, to make a new siding to the railway, which might very well have been made in another direction if the engineer, Berardi, had so pleased; but he was one of those who are entirely ignorant of archæology, and he despised it like other ignorant persons. In this he was supported by his brother, the Cardinal Berardi, the Minister of Commerce and the Fine Arts, to whose department it belonged to give this permission, which was readily granted, although Visconti had been

struggling for ten years to preserve the wall, and had painted large black figures on each of the stones as it was uncovered in order that it should not be moved without his knowledge, and he claimed possession in the name of the Pope, to whom all antiquities belong. But the Cardinal Berardi was his superior officer, and he was obliged to yield. This loss is the more to be regretted, because upon this great bank or *agger* there were the remains of the houses of a street of the first century, with painted chambers, all of which had been carefully excavated by four of the young Roman princes only the year before, at considerable expense. Fortunately they had taken photographs of these, which are now the only records of what was there only a few months since. One of the most interesting fragments of Rome has thus disappeared before our eyes. In the course of the pulling down of the wall of Servius Tullius, we found that the large blocks of tufa had been clamped together with iron clamps, some of which I bought of the workmen. No cement was used.

I will conclude with a few words respecting my explorations in the Catacombs, which I have pursued for the last four or five years with the permission of Signor de Rossi, who has charge of them for the Government. He permitted me also to take photographs of them, the results of which are now in my collection, together with another set from the mosaic pictures in the churches of Rome. These two sets throw great light on each other. The drawing of each century, like the architecture, is always the same, as we know from D'Agincourt's "Histoire de l'Art par les Monumens," but we have hitherto had no copies that we could depend upon, of either the fresco-pictures in the Catacombs or the mosaic pictures in the churches; by putting them side by side it is evident that a large proportion of them are of the same periods, the work of the same Popes, whose names and whose portraits are in the mosaic-pictures themselves; and this agrees with Anastasius, who tells us that they restored the Catacombs, and the paintings naturally belong to the last restoration. Whether this discovery of the truth was unpalatable to the authorities or not, I cannot tell, but the last time I saw Signor de Rossi, he told me he was very sorry to inform me that the Cardinal Vicar had forbidden any more photographs to be taken in the Catacombs. The Pontifical Government has also refused

me permission to take photographs in the pagan tombs on the Via Appia, which contain a series of fresco-pictures of the second century, dated by the brick-stamps. The style of these frescoes is so different from the greater part of those in the Catacombs that it is impossible to believe they are of the same period, which would be that of the tombstones of the martyrs. On the other hand the paintings in the Catacombs do agree with the mosaic pictures of the sixth, eighth, and ninth centuries, the time when they were restored.

The shallow pretext for refusing me permission to take any more photographs is, that the light from a lamp of magnesium *may* injure the frescoes, which is evidently *moonshine.* The first person to have one of these lamps in Rome was the Cardinal Antonelli ; and the first place in which he tried it was in the Catacombs. The Cardinal Vicar [Patrizzi] has power to act in the name of the Pope, and he is always considered as an organ of the Jesuit or Ultramontane party, the bigots of the old school.

Other excavations were carried on during the season, not for the purpose of researches, but for practical objects, in which some objects of interest came to light accidentally : one in the garden of the hospital of the Lateran, in which an ancient tufa wall was found, apparently part of the fortifications of the Lateran at a very early period ; another in the Forum Romanum, in making a new drain from the Capitol to the Cloaca Maxima. Here a long piece of the basement of some large building was found in front of the church of S. Hadrian, with the lower part and base of a marble column. This basement passes parallel to the front of the church ; it is mediæval, but the foundation is probably that of a Basilica, or market-hall, of the time of the early empire. A third of these excavations was made in the Piazza Navona, and brought to light some portion of the curve of the circus which is known to have been on that site.