## ARCHÆOLOGICAL RESEARCHES IN ROME DURING THE WINTER OF 1873-4.

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The excavations in Rome increase in importance and in interest each succeeding year. They have now arrived at the very heart of Rome—the Forum Romanum, the Via Sacra, and the Colosseum. My object is to call attention to the most important excavations of this last season, whether made by the government, or the municipality or the building companies for the New City, or by individuals, and to point out their bearing on the historical topography, and the truth of the old legendary history of Rome.

TEMPLE OF VESTA. One of the most recent is that of the podium, or basement of the original temple of Vesta in the VIA SACRA,

which, like so many others of the recent excavations, confirms in a remarkable manner the old history. The situation of it is exactly where it ought to be, according to Dionysius and other authors, and the construction of it is exactly what we should expect to find at the period assigned to it. It is of the rude construction of the time of the early Kings of Rome of the second period, and it is certain that it has not been exposed to view for more than two thousand years until the present time.

THE REGIA. Immediately behind this, at the foot of that corner of the Palatine, now stands the Church of S. Maria Liberatrice, built in the seventeenth century on the site of the Regia. At the time that this church was built, a number of inscriptions of the names of Vestal virgins were found on the bases of statues, a distinct proof that this was long their residence close to this temple. The Regia was originally the residence of the Kings,<sup>2</sup> but in the time of the

<sup>&</sup>lt;sup>1</sup> Dionysius Hal. l. i. c. 66; Servius in <sup>2</sup> Æneid, l. viii. v. 363. Ovidii Fasti, l, vi. c. 263.

Republic it was given to the Pontifex Maximus, the chief officer both of Church and State. Nearly at the beginning of the empire Augustus was appointed Pontifex Maximus, but he had previously as Emperor been ordered by the senate to reside on the Palatine, and had purchased the house of Hortentius, which he was not disposed to leave. We are told by Suetonius that he slept in the same bed-room for forty years. He therefore gave the Regia to the Vestal virgins as their habitation, because it was close to their temple. The one, therefore, identifies the other.

Basilica Julia. Augustus says that he enlarged the Basilica Julia so much that what had been the length became the breadth, and that it extended from the Temple of Saturn to that of Castor and Pollux; and we now see the raised platform of that great market-hall extending all down the west side of the Forum Romanum, from the paved street under the Temple of Saturn at the north end, to the other paved street under the temple, with the three celebrated columns, which was evidently therefore that of Castor and Pollux, at the south end.

Temple of Castor and Pollux. Dionysius tells us that the Via Sacra, and the temple of Castor and Pollux, or the Dioscuri in the Forum Romanum, were "built at the time that the two hills (the Palatine and the hill of Saturn) were united in one city, and enclosed in one wall." The podium of the latter temple had been partly exposed to view (last year, I think) and was found to be of the same early construction, which is now known as the second period of the Kings. This latter podium has been more fully developed during the present season, the east side of it having been now excavated, and this also confirms another piece of the architectural history of ancient Rome.

Palace of Caligula. We are told by Suetonius that Caligula used this temple as the vestibule to his palace, and immediately adjoining to it (so closely that a doorway might well be made from one to the other) is a fine lofty brick wall of a palace, of the character of the first century, with the tall brick piers of an aqueduct bridge at the further end. The direction of this bridge is

Suetonii Octavianus, c. lxxii.
 Dionys, l. vi. c. 13; Ovidii Fasti, I. i.
 V. 707.
 Suetonii Caligula, c. xxii.

straight to the Tarpeian rock, on the top of which is the temple in the garden of the Caffarelli palace, discovered by Bunsen, which I maintain to be that of Jupiter Capitolinus.6 This temple is said to have served as a pretext for the bridge to amuse the minds of the superstitious Roman people, but the real object of that bridge was to complete the system of the aqueducts according to the plan begun in the time of Nero, but not completed in his time, a part of which was to convey the water of the Aqua Claudia and the Anio Novus united to each of the fourteen Regiones of Rome 7 in the stone specus, or conduit, which was necessary to convey the quantity of water that they required, and which was always carried on the same level. This aqueduct first crossed the valley from the Cælian to the Palatine over the arcade, of which a portion remains, it then passed in a tunnel through the rock of the Palatine from south to north, the north end of which has been lately brought to light, leading to that end of the bridge of which three of the piers remain, faced with the bricks of the time of Caligula. Signor Rosa has kindly promised to have the tunnel cleared out and examined. This aqueduct forms one of the usual angles at the north end of the Palatine, as we find it was the practice to make an angle at each half mile of an aqueduct, to break the force of the water.

Another confirmation that this was the line of the celebrated bridge of Caligula, and that one object of that bridge was to carry an aqueduct across the valley from the Palatine to the Capitoline Hill, is the discovery of the remains of another aqueduct under a wine shop, close to the foot of the steps ascending to the Capitolium, that is, under the rock on the south side of the Capitoline Hill, just in the line to which this bridge would lead. These remains must belong to the aqueduct called the Anio Vetus, which is always underground in Rome, but near the surface, and the Anio Novus always follows the same line, although at a much higher level. The early aqueducts were all subterranean, and no one was allowed to build over them anything but another aqueduct; consequently the later aqueducts were all carried

on the same lines through Rome.

PALACE OF TRAJAN AND HADRIAN. The palace on the the Palace of Caligula, is shown by the construction to be of

<sup>&</sup>lt;sup>6</sup> Dionys. 1. iv. c. 61; Suetonii Domitianus, c. 5.
<sup>7</sup> Frontimus de Aquaeductibus, lib. ii. c. 86.

the time of Trajan and Hadrian; the eastern part of it corresponds exactly with the construction of the Villa of Hadrian at Tivoli, and it is built against other walls of the time of Trajan, which are again built against an earlier palace, and against a remarkable passage corbelled out and ornamented with stucco patterns under the small vaults that rest upon the corbels, and with a piece of the transenna, or pierced marble parapet, in front of the passage remaining in its place.

ROSTRUM AND TEMPLE OF JULIUS CÆSAR. the level of the Forum, at the south-east corner of it, opposite to the temple of Castor, is the *Rostrum* and temple of Julius Cæsar,<sup>8</sup> with the round side of the *Rostrum* towards the temple, the flat side towards a paved platform for people to stand upon. The position of this temple being thus ascertained, explains several passages in the classics that have been long disputed.

Behind this, on the top of a step just above the level of the Forum, and therefore forming the southern limit of it, are remains of a fountain of the time of the early Empire, with the channel for water round its edge, similar to several of the water channels in the Colosseum. This fountain is considered to be that of Juturna, at the south end of the lake of Curtius, in which three streams met, one from the Palatine, the source of which is underground, under the Arch of Titus; the second from the Quirinal, which is visible under a wine shop behind the church of S. Hadrian; the third from the Capitoline hill, visible in the lower chamber of what is called the Prison of S. Peter; these three streams still run underground in drains, and meet in the Cloaca Maxima.

CLOACA MAXIMA. A portion of this early drain is left visible under the south end of the platform of the Basilica Julia, and its semi-hexagonal vault is of the character called Etruscan, and exactly corresponds with that in the subterranean passage that connects one part of the ancient prison of the Kings with the other, and both of these great works are attributed by Livy to the same period.

Bases in the Forum. Down the centre of the Forum, on the eastern side of the paved road, is a series of massive square brick bases for columns,

<sup>&</sup>lt;sup>8</sup> Dio. Cass. l. xxiv. c. 51; Ovidii Metam. l. xv. v. 840.

and portions of several of the columns themselves are lying about. These are represented with images at their top in the sculpture of the Forum upon the eastern side of Constantine's arch (of which Signor Rosa has placed a plaster cast in the porter's lodge of the Palace of the Cæsars). The construction of the bases is not much before the time of Constantine.

EQUESTRIAN STATUE OF DOMITIAN?
OR OF CONSTANTINE?

Near the middle of the Forum, on the eastern side, is a *podium* 

of an equestrian statue, said by the Roman antiquaries to be that of Domitian, but more likely to have been that of the bronze horse of Constantine, as the construction of the base is of his time; and this is mentioned in the Regionary Catalogue of the fourth century, whereas that of Domitian is not there mentioned, probably because it had then been removed.

More to the north, and not far from the steps Comitium. of the temple of Concord, though separated from them by the great bank of earth on which the modern road is carried, are the two parallel walls of marble, covered with sculptures on both sides, discovered in the last season and supposed to belong to the Comitium. On one side of each wall is the sculpture of the three animals prepared for sacrifice; on the other, a procession going up to the Emperor, seated on his throne and surrounded by his officers; each of the persons in the procession carries a large tablet on his shoulders, and they are believed to represent the Roman citizens carrying the tablets of their debts to be cancelled by Hadrian, according to the history of the period. the procession, or deputation, has gone a short distance, the tablets are thrown on the ground in a heap to be burned; the procession then goes on, headed by an orator, who stands upon a rostrum and addresses the Emperor, who is seated on his throne, and surrounded by his officers, who receive the deputation. At one end of each wall is sculptured the celebrated fig-tree, that long stood in the Forum Romanum, and the image of Silvanus under it. The buildings in the background of the sculpture are believed to be those at the north end of the Forum, as seen from that spot, the arcade, or porticus of the Tabularium and the temples, as they existed in the time of Hadrian. Another representation of the Forum Romanum has now been identified

<sup>9</sup> Livii Hist, lib, i. c. 36; Cicero De Divinat. 1, i. c. 17.

on the Arch of Constantine, in sculpture of his time, as we have mentioned. This is not taken from the same point of view, and there are considerable variations between them. It is generally thought that the animals for sacrifice should have been placed on the outside, and the procession, which is one subject on the two walls, should have been placed inside so as to face each other. This sculpture was found in fragments, and has been cleverly put together by Signor Rosa.

Considerable excavations have also been made in the Colosseum (partly at my suggestion), to enable scholars and archæologists to see to what period the substructures belong. These were partially excavated in the time of the first Napoleon, but respecting the results obtained by those excavations there was a great difference of opinion. It now appears that the brick walls under the area, which first catch the eye, are of the fifth century, and an inscription found there on a former occasion records that the area was raised by the Prefect of Rome at that period. The reason for raising the level of the area so much, probably was that the old deep fosse-ways in that part of Rome had then been filled up to the level of the ground, and as the old area of the Colosseum had been originally dug out to the level of the streets made in the fosse-ways 15 feet below the level of the ground, this great descent had become very inconvenient. The mediæval painting of Jerusalem and the Crucifixion, which remains over the northern entrance to the Colosseum now generally used, but on the inner side of it, was evidently made to be seen by persons passing on the higher level. The filling up of the old fosse-ways did not begin until the second century of the Empire, after the Colosseum was built. At the south end a series of square-topped arches is seen, one behind the other, at a very low level over a passage. This long passage leads out at the south end of the Colosseum at the level of the old fosse-way, in the direction of the Church of S. Clement and the Lateran; but this great excavation is not yet completed. These walls are evidently built to a great extent of old materials, some of them being of stone, having vertical grooves for sluice gates to slip up and down; but the grooves do not face each other, and other walls of brick of a later period have been introduced between the stone walls. Below these are other older walls, some of them evidently used as foundations only. The work of excavation in this place was for a time interrupted by water.

It is true that Dion calls this great Amphitheatre by the name of Theatre only, but an inscription has been dug up in the area in which the building is called THEATRUM. It is

evident that the two names are used indifferently.

The earlier excavations, as represented in the engraving of the time of Napoleon I., show two long channels for water, side by side down the middle of the area. These have not yet come to light. Some chambers under the great stone arcade have been excavated and left open; some of them were probably for the cages of the wild beasts. Channels for water, but of a smaller kind, are found under the stone arcade, and communicating with another channel or water-drain from the one to the other. It must be borne in mind that the arena was a boarded floor covered with sand for the athletes, and was removable at pleasure. In it were trap-doors, through which the cages of the wild beasts could be sent by means of lifts. Care must be taken not to fall into the ignorant, though common, blunder of confusing the area or soil of the Colosseum with the arena, which was removed when the naval fight was shown, of which we have a vivid description by Dion Cassius, himself a Roman Senator, who describes what he saw in the time of Commodus.

There is reason to believe that the grand stone NAUMACHIA. arcades of the Flavian Emperors were originally built round the old *Naumachia*, which was in the form of an oval basin of water, such as we see now on the Palatine, and naval fights in the old *Naumachia* were exhibited at the dedication of the Amphitheatre, but that the basin was afterwards altered into two parallel canals, along which the vessels were dragged until they were side by side; they were then lashed together, and the favourite amusement was for the crew of one vessel to try and board the other, and the crew of the defendants to throw off the assailants into the Similar arrangements were made in other Amphitheatres; there is one of these channels remaining at Tusculum in the Amphitheatre there, the other is still buried. Capua both remain, with the aqueduct to bring the water to them and the drain to carry it off.

The upper story of the Colosseum was originally of wood only, and was destroyed by fire, arising from lightning, late

in the second century. It was rebuilt of stone in the time of Alexander Severus and Gordian I., as is represented on a coin of the latter, with the Meta Sudans and a colossal figure of about 50 ft. high, with the inscription—

MVNIFICENTIA GORDIANI AVG.

The construction both of the Meta Sudans and of the podium or basement of the colossal statue is of the third century, and agrees with the period of Gordianus; and there is no other representation of the Colossus with the Amphitheatre, as is commonly, but erroneously stated. In front of and facing the Colosseum is the substructure, under the south end of the great platform, on the Summa Via Sacra (on which stood the Porticus Liviæ).

The substructure at its south end has been Porticus Liviæ excavated during the present season. The construction is of rubble or concrete, with the marks on the plaster of large blocks of tufa of a wall of the Kings. Upon this substructure is carried an aqueduct, which is also under the pavement of the platform, and turns the corner on both sides. In the plan of the Porticus Liviæ on one of the fragments of the marble plan of Rome, is seen a grand double colonnade down both sides, and both ends of a great oblong platform, with a fountain at each corner. This aqueduct is exactly suited to carry water to such fountains. At the end opposite to the Colosseum are seen, on the marble plan, steps leading up to this platform, and these steps have been discovered in situ exactly as represented on the plan. On the eastern, or left-hand side of the platform, is seen (on the plan) a small narrow lane or street, and there is exactly such a street with the pavement of the time of the Empire remaining. It appears to me that all these coincidences cannot be merely accidental. The discovery of this substructure, opposite to and near the Colosseum, appears fully to explain the suggestion of Apollodorus, the architect to the Emperor Hadrian, that he ought to have built the "Templum Urbis Romæ" on the elevated platform visible from the Via Sacra and the Forum Romanum, instead of in the Forum Pacis, where he did build it. The Colossus of Nero originally stood in the vestibule of his palace, as we are told by Suetonius and Dion Cassius. This vestibule was on the site now occupied by the Church of SS. Cosmas and

<sup>&</sup>lt;sup>1</sup> Dion Cassius, lib. lvi. c. 27.

Damian, and the marble plan of Rome was afterwards placed against the wall of the temple under the Velia facing the Forum Pacis; but the "Templum Urbis Rome" was not visible from the Via Sacra or from the Forum Romanum. Strabo? says that "a man standing in the Forum Romanum could see the buildings on the Capitoline hill, the Palatine hill, and the Porticus Liviæ without moving his feet." This exactly agrees with the site here described,

and not with any other.

The Roman antiquaries of the last century endeavoured to find a place for the Porticus Liviæ near the church of S. Pietro in Vincoli, on the Esquiline, where it is just possible that it might have been visible from the Forum Romanum, though at a considerable distance, and at a high level. They thoroughly examined the ground there, and even trenched the garden of a small monastery, which seemed to them to be the most likely place for it, but they could find no trace of it, and they have put up an inscription on the wall to state this fact. The fragment of the marble plan containing the Porticus Liviæ had not then been found, or they would probably not have sought for it in that place. There is now no doubt that the only site in Rome which can suit the Porticus Liviæ, according to the marble plan, is on the Summa Via Sacra, which fits it in a remarkable manner.

This Porticus was originally built by Augustus in honour of Caius and Lucius Cæsar, as we are told by Dion Cassius,3 but was afterwards called after Livia, and that name is inscribed upon the marble plan. This fragment of the plan was dug up in 1869, at the foot of the wall to which the whole plan had been attached, and in which are remains of the metal hooks that attached it. This is the back wall of the church and monastery of SS. Cosmas and Damian, and was both long and lofty. The Plan was of great extent, and the upper part of it was made on a larger scale than the lower part, so that it might be all equally visible. fell down at the foot of the wall during an earthquake, probably in the fourteenth century. It was broken to pieces by the fall, and was buried where it fell. All the fragments that have been found, were found on the same spot, although at different periods.

<sup>&</sup>lt;sup>2</sup> Strabo, lib. v. c. iii. s. 8. <sup>3</sup> Dio. Cass., lib. liv. c. 23; ibid., lib. lvi. c. 27.

The substructure of the south end of this great platform, on which the church of S. Francesca Romana now stands, has been excavated in the winter of 1873-74, and the result further confirms the suggestion of this being the site of the Porticus Liviæ. The church of SS. Cosmas and Damian is recorded by Anastasius to have been built on the site of three temples, one of which was that of Romulus, the son of Maxentius; the other two could only be those of Venus and Roma. I excavated the south doorway of that temple some years since, and found it to be of the time of This church, therefore, stands on the site on which the great Colossus of Nero was originally placed by him in the vestibule of his palace, which was connected with the palace itself by the northern end of his Porticus. The whole length of this Porticus was a mile, and there are remains of it at both ends, and at intervals along the line against the cliff of the Esquiline. The name given to it originally was Porticus Triplices, and there may possibly have been three arcades, one on the Cælian to carry the aqueduct, now always called the Arches of Nero, another against the cliff of the Esquiline, and a third in the centre down the middle of the valley. Remains of what may have been arches of an aqueduct were found by Father Mullooly in the garden of the monastery of S. Clement, in some excavations made in 1872. The word "porticus" in Rome means both colonnade and arcade, and in this instance we have examples of the two close together. The "porticus" of Livia was a double colonnade round the edge of a large oblong platform on the Summa Via Sacra. The "porticus" of Nero was an arcade of two storeys, as was also the "porticus" Julia in the Forum. There are sufficient remains existing to prove this. The "porticus" of Nero' was, at its northern part, against the cliff of that part of the Palatine called the Velia, and there remain four of the upper arches against that cliff on the eastern side of S. Francesca Romana. The back of the "porticus" supports the cliff, from the great basilica, or market-hall of Constantine, nearly to the Colosseum. The basilica is cut out of the cliff, and belonged to the Forum Pacis, in the same manner as the Basilica Julia belonged to the Forum Romanum.

<sup>&</sup>lt;sup>4</sup> Plinii Nat. Hist., lib. xxxvi. c. 24, s. 7; Horatii Sat., lib. 1, c. 8; Suetonii Nero, c. 13.

The vestibule of Nero's palace, now Porticus of Nero. the church of SS. Cosmas and Damian. was immediately at the foot of the Clivus Sacer, a steep incline from the south end of the Via Sacra to the Summa Via Sacra, at the north end of which now stand the Arch of Titus and the Basilica of Constantine. The marble columns of the portico of the temple of Romulus, the son of Maxentius, which stand at the foot of the Clivus Sacer, are half buried by the filling up of the fosse-way, and the bases of them are ten feet or more below the present level. The pavement of the upper part of the Clivus Sacer, between the arch of Titus and the Basilica of Constantine, was excavated in the time of the first Napoleon, and is still left visible. (I have long tried in vain to persuade Signor Rosa to continue that excavation down the Clivus. Some years since I made an offer to do it at my own expense, but it was not agreed to. I have, however, no doubt that it will be done next winter.)

The original site of the Colossus of Nero being then, as I believe, near this spot, it is easy to see why twenty-four elephants were employed by Hadrian to drag it,5 standing, up the steep ascent of the Clivus Sacer and place it on the Summa Via Sacra, as the most conspicuous place in Rome, visible from the Forum and the Via Sacra. This is exactly the site on which Apollodorus, the great architect of the Forum and the Column of Trajan, told Hadrian that he ought to have built the Temple of Roma, but it is quite clear that he had not done so. The substructure in front of the Colosseum (now excavated) is in the same rude rough state as when it was left in the time of the Republic, and has only had the aqueduct introduced under the platform in the time of Augustus, and as this is a small aqueduct close to the pavement of the platform, it would not have interfered with the machinery of the Colosseum, which Apollodorus also told Hadrian he ought to have placed there. These discoveries have made it quite clear that Hadrian did not place his temple in the middle of the Porticus Liviæ, as he has been supposed to have done. The podium, or basement of the great Colossus, is thought to have been traced under the buildings of the monastery of S. Francesca Romana, near the north end. The two buildings which now stand there.

Suetonii Nero, c. 31; Dio. Cass., lib. Ixvi. c. 15; Spartianus in Hadriano, c. 19.
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each with its apse,—the two apses back to back,—are market-halls, or forums, of the time of Constantine, and have no remains of the time of Hadrian; brick stamps of his period have been found in the podium, or base of the Colossus only. This grand Colossus was 120 feet high, and the rays from its head were 20 feet long, Nero being represented in the character of Apollo, or the sun. present campanile, or belfry-tower of S. Francesca Romana, which stands on the Summa Via Sacra, is of about the same height as the Colossus, and gives an idea of what the effect of that figure must have been. Martial might naturally say that "the head was in the stars," whereas had the Colossus stood against the great wall of the Colosseum as modern antiquaries place it, the expression would not have been natural. The podium in front of the Colosseum, and the Meta Sudans are now standing, and are both of brickwork of the third century; they were probably damaged by the falling of the upper storey of the Colosseum, when destroyed by lightning, as before mentioned. But this Colossus, measuring it by the wall of the Colosseum, is not more than 50 feet high, and the fragments of a bronze Colossus of these dimensions were found near this base, and are now in the Capitoline Museum. All the great public works were in fact carried on by a Board of Works at the public expense, by order of the senate. The Emperor was only the chief officer of the state, and each building was called after the Emperor in whose time it was completed, and was represented on his coins. Sometimes, indeed, a project only seems to have been represented. The coins are, therefore, not always quite positive evidence, but in this case there is no reason to doubt them. Modern Roman antiquaries have indeed asserted that there were earlier coins with a Colossus of Nero in front of the Colosseum, but when challenged to produce one they cannot do so, and the best numismatists say there is no such coin in existence, and that the only coin with a Colossus is that of Gordianus.

On the western side of the SUMMA VIA SACRA, between the Arch of Titus and the Colosseum, the ground was excavated in 1873 under the eastern cliff of the Palatine, close under which were found a series of guard chambers similar to those on the western side of the hill. In front of these are remains of the Lavacrum of Heliogabalus, where he established

gratuitous baths, and in these ruins of the third century a small church was built in the ninth, of which the apse and part of the altar remain at one end, and the marble columns of the portico at the other. It was dedicated to S. Maria, and was called S. Maria Antiqua when another church was built near to it called S. Maria Nova, now S. Francesca Romana.

A NEW CITY of Rome is being built within the old walls, but on the hills, with the railway station for the centre (as seems natural now everywhere). Unfortunately, owing to a blunder on the part of the engineers employed, when the railway station was made under the Pontifical Government, they carried the station within the great agger of Servius Tullius without being at all aware of it, and were much astonished at having to cut obliquely through an enormous stone wall twelve feet thick. They might just as well have carried the line a little further on to the north, and kept it outside the great agger. This would have saved them great expense, and would have made no perceptible difference to persons going to the station. Any antiquary would have told them what they were doing. The agger is plainly laid down on Nolli's map, published in the early part of the eighteenth century. This first great blunder has led to all the rest; it became necessary to remove the agger to make room for the new city, and a railway was made for the purpose of carrying away the earth outside the walls and filling up a valley with it near the Villa Albani, on the eastern side of Rome.

It must be borne in mind that this great THE AGGER. agger was a bank of earth a mile long, fifty feet high, more than fifty feet wide at the base, faced by a stone wall twelve feet thick, and with a great fosse at least fifteen feet deep, and twenty feet wide on the inner side. On the exterior it was much wider and deeper, but the exact extent of it has not yet been ascertained. The fosse had been made into circuses, thermæ, and other places of public amusement at a remote period, chiefly in the time of the Early Empire, and was either built upon or turned into market gardens and vineyards, and the levels much altered for the purpose of cultivation. On the side that faced the sun, earth was sure to be thrown up against it so as completely to bury the wall, because a sloping bank facing the sun in Rome is equivalent to a hot-bed in England; the produce is often many weeks earlier than that on the level ground or in the shade.

In destroying the agger it was found that houses had been built upon it all along the inner side, and that they were mostly of the first century. Four of the young Roman Princes excavated some of these very carefully, and would gladly have preserved them, but they came in the way of the enlargement of the station, and they were doomed. Some houses have been found on the outer side of the bank, but these were not earlier than the time of King Theodoric. These houses are built upon the slopes of the bank, and have no back doors or windows to them, and the pavement of the street in front of them is at the bottom of the great inner fosse; part of the pavement was seen in enlarging the station. An aqueduct was also found in several places going along the inner side of the agger, and considerable parts of the great wall. There had been so much earth thrown up against it on the outside for the purpose of cultivation, that the wall appeared to be in the middle of the agger, but on examining the earth of which it is composed, it was seen that the original agger within is as solid as natural earth that has never been disturbed, but the earth on the outside is all made earth and full of rubbish. A very remarkable part of the great wall was found between the railway station and the church of S. Antonio Abbate, a solid round tower on the inner side of the wall; this appears to have been for a catapult; the stones still have the mason's marks upon them deeply cut.

VILLA AND PAINTED CHAMBER. A little further to the north remains of a villa of some importance of the time of Augustus have been found with a painted chamber, apparently a dining-room, the paintings of which are very fine, so closely resembling those at Prima Porta that they are probably by the same artist. The Municipality have agreed to deviate a little from the authorised plan of the city in order to preserve this villa, and they propose to make a local museum of it and glaze it over. The new city is built in large square blocks of houses, with open squares between them, of which they propose to make gardens, and as far as possible to preserve some ancient remains within each square, and so distinguish old Rome from any modern city. We must give the Municipality credit for doing their

best, and the government for assisting them. The Italian Parliament have voted £2000 this year for the excavations in the Forum instead of £1200, as voted in each of the two

previous years.

I am frequently asked "What I have EXCAVATIONS. done this season?" Individually I have done very little but watched what others were doing, as I had no funds, and nothing can be done without possession of money. All I have been able to do is to keep possession of the cellars that I have discovered to be the great prison of the Kings of Rome, and to add one more chamber, making six,—and there may be more if we can get the money to search for them. We have not excavated this new chamber, but have left the earth in the middle, making a passage round it to see the walls. The end wall is very singular: a fine brick wall of the first century, probably of the time of Tiberius, is built up against the old massive tufa wall of the time of the Kings, as if the architect did not know of the existence of the old wall, and ordered such a brick wall to be built to support something above. We find the same thing on the Aventine, where a brick wall, belonging to the thermæ of Trajan and Sura, has been built obliquely against the old wall of the time of the Kings, which was probably then underground and forgotten.

The old prison is in considerable danger; it is on the line of one of the new streets, a continuation of the Corso in a straight line to the Forum. If no one interferes to save it, and the level of the street requires it, there is great probability that it will go. I have reason to believe that it could

be obtained for £500.

Under the new system of government, Prince Humbert, the Ministers, and the Syndic of Rome are all very polite and obliging, but there still remains much difficulty with the subordinate officers. National jealousy creeps in continually: it is difficult to make the smaller officials understand that archæology belongs to all nations alike. But I consider the prospect as bright. My friend Lanciani is Secretary of the Archæological Commission, and allows me to have free access to the book in which all discoveries are entered, and to see all the drawings and plans that they have made, and have tracings of them if required. It was by this means that I was able to give in the first volume of my work on the Archæology of Rome, a complete set of plans, sections, and

drawings of the great public building of the city, now called the Municipio, but originally called the Capitolium, the lower part of which, containing the Ærarium and the Tabularium,

is of the time of the early Kings of Rome.

Since the above was written I have received letters from Rome, informing me that an excavation which had been agreed upon before I left, to be made in the vineyard of my friend and secretary, Signor Brocard, by Mr. Pullan and myself jointly, has been completed, and the results are interesting. That vineyard is situated on the eastern side of the great central building of the Thermæ of the Antonines, usually called after the last of them, Antoninus Caracalla, and a considerable part of the Porticus of the Thermæ begun by Caracalla and finished by his successor Heliogabalus is situated in that vineyard, which extends from the main building to the present road, now often called the Via Appia, but known not to be exactly on the line of the ancient Via.

By digging a trench transversely across a part of the space between the Porticus and the main building, they have found a subterranean passage extending along the whole length of the building, at the depth of about fifteen feet from the surface. It is about four feet wide and five feet high, and has a vault with stucco ornaments. This has been cleared out for the whole length and left accessible for future archæologists to see. I remember, some years since, to have seen part of another subterranean passage of the same kind and at the same depth going from the Thermæ of Caracalla to those of Commodus and Severus, the remains of which I had then just found. These are on the other side of the road, at a short distance, under a small hill called Monte d' Oro, which is believed to consist of the ruins of the Thermæ. The line of the aqueducts to bring water to them from the reservoirs at the Porta Latina, which is not far off, was also found.

There is reason to believe that many similar subterranean passages remain in various parts of Rome, and that they were for use in the hot season. I have now general permission to excavate them, but unfortunately these facilities have come too late, as my funds are quite exhausted. I have, however, received sufficient help from a friend to enable me to re-open one of the seven deep pits that I had previously excavated on the line of the short agger and Wall of Servius Tullius, across the valley from the Cælian to the Aventine,

in one of which were found the remains of the Porta Capena, which gave entirely new ideas on many points. covery showed that all the existing Plans of Rome were They all follow what are called the Roman erroneous. Traditions, which are only the conjectures of Panvinius and his school in the seventeenth century, very learned and able men, but who could not see things that were buried twenty feet deep. The excavations have distinctly proved that Servius Tullius did not build a continuous wall round Rome, as they assumed, but he made use of the old fortifications of the separate hills to defend the approach to each gate, which was made in a short agger or bank, across and high up in the valley, with the old fortifications projecting far beyond them. It also showed the line of the aqueducts within the walls of the city which was not known before, and which is important in many ways, as it throws light on many other things.

The particular pit which has now been re-opened, with permission from the Municipality to leave it open for the benefit of future archæologists, is the one seen by his Holiness Pius the Ninth, who said there was no denying that the wall he saw before him was a wall of Servius Tullius, and this is now generally admitted, though it was denied at first. Other walls of the time of the Kings remain in several places within the line of the Wall of Servius Tullius, which could only have belonged to the ancient fortifications of the separate hills when each was a distinct and fortified village. These walls, originally made for defence, were useful also in keeping up the earth on the slopes of the hills, and are preserved for that purpose. When they face the sun they are covered with earth thrown over them for cultivation, when they are in the shade they are generally let alone. walls exist in the garden of the monks of S. Gregory, between the Cælian and the Palatine, where they could be of no use for defence after the wall of Servius Tullius was made—also in the Colonna Gardens under the Quirinal-again under S. Balbina on the Aventine, on the north side of it, within the line (now hidden by the quantity of earth brought from the Palatine). Another wall of the Kings was found in making the new street up to the Quirinal Palace, of which I attempted in vain to obtain a photograph. It was seen by many people, however, as it was left uncovered for some months. and it now has a modern wall built up against it with niches for modern statues. One of the short aggers and walls previously mentioned crosses the valley from the Celian to the Esquiline, and is visible under the Church of S. Clement; more of it was brought to light by the excavations of 1873, near the church of the Santi Quattro Coronatti. The Porta Viminalis was on the site of the Railway Station, considerably within the line of the great bank or agger, now nearly destroyed, but of which considerable remains are still visible, sufficient to show the line it took.

The under-croft of the Tabularium has THE ÆRARIUM. been cleared out of the rubbish which had long accumulated there, and a new flight of wooden steps from the Tabularium has been made into it. These wooden steps serve to connect the Tabularium, or Public Record Office, with the Ærarium, or Public Treasury of the Kings of Rome, by means of the old marble staircase of the time of the Empire, to which they lead. This staircase is little known, and has only recently been exposed to view. It should be stated, in justice, that these wooden steps and the fitting-up of the Ærarium for a Museum has been done at the expense of Signor Castellani, as a Member of the Archæological Commission of the city.6 The staircase ascended from the back of the Temple of Concord, at the east end of the Ærarium, to the Senaculum, or Senate House, at the back of the Tabularium. The upper part of it was destroyed by Michael Angelo when he rebuilt the upper part of this great public building of stone, which had been previously of wood only, and had twice been burnt. At the same time he shortened the building at the east end, leaving a passage about six feet wide between the east wall of his new building and the lower part of the fine old wall of the time of Sylla, which was admired by Pliny as a fine piece of masonry, as it still is. Michael Angelo considered the Ærarium and Tabularium as foundations only, being at a lower level than the Municipal Offices which he was employed to rebuild, and, being to a great extent underground in his time, and concealed by mediæval houses built up against them, of which the marks remain very clearly in the wall at the west end.

<sup>&</sup>lt;sup>6</sup> His magnificent collection of ancient jewellery and all works of ancient art of the character usually called Etruscan, near

the Fountain of Trevi, is well known to all the visitors in Rome,

which has not been rebuilt, and is one of the oldest buildings in Rome.

Part of the Second Wall of Rome that enclosed the Palatine and Capitoline hills in one city was brought to light in 1874, and it was clear that it passed along the South end of the Palatine, and that it had been used as old materials for building the Colosseum, where a large quantity of the old blocks of tufa are used for the substructure of the Arcades, with piers of travertine at intervals for greater strength.

Few persons have any idea of the great extent of the excavations that have been going on in Rome during the last two years. Fortunately the Municipality publishes an excellent "Bulletino" to give an account of what is found, which is conducted by Sig. Cav. C. L. Visconti and Sig. R. A. Lanciani, two of the best-informed antiquaries of Rome. The last number of this work contains a summary and index of the objects found, and a concise account of them. This summary, an extract from which is subjoined, will give an idea of the work involved in arranging and describing these objects.

Three of these have been found, one of which is of so much importance that the Municipality have consented to make a deviation from the plan of the new city in order to preserve it in the place where it was found, and to cover it over with a glass roof, and make a local museum of it (as noticed on p. 170). The villa in which this was found is near the south end of the great agger of Servius Tullius, and near to its junction with the cliff of the Esquiline hill, between the church of Sa. Maria Maggiore and S. John Lateran. The chamber has been the dining-room of a villa of the time of Augustus, and the decorations appear to be by the same artist as those at Prima Porta, being very nearly of the same character and treating of the same subjects.

Mosaic Pictures and Pavements. Of these fifteen have been found, and those considered worth it have for the most part been preserved; but few could remain in their original places, because they are cut through by new drains, which are on the same scale and of the same depth as those of the Empire, though not quite so large as the Cloaca Maxima, which is unrivalled.

Statues. Fifty have been found, generally in a broken state, but they are now cleverly put together. A large number were found broken intentionally and built into a wall, having been considered by the builder merely as so many pieces of stone.

Busts and Heads. Seventy of these have been found. Many of them are of interest, but they have not yet been classified and arranged or described. A

new museum is being made to contain them.

ARCHITECTURAL DETAILS. Of these nineteen fresh examples have been found. The collection of architectural details in the Tabularium, begun by Canina, but long discontinued, has been now again taken up and is being continued. Some very fine things are already placed there, and especially the two cornices and entablatures of the temples of Concord and of Saturn.

Coins. Upwards of one thousand coins in bronze or copper have been found: one hundred and thirty-three of the old bronze (Æs), two hundred and ninety-eight

of silver, and some of gold.

INCISED GEMS. Eleven of these have been found, which should perhaps be placed with the coins.

Bronzes. Eighty-nine have been found; a good addition to the Museum of Bronzes.

SARCOPHAGI AND BASSI-RELIEVI. Eighteen have been found which will be placed in the proposed new Sculpture Gallery.

ORNAMENTS IN TERRA-COTTA. One hundred and forty-three of various classes of

these objects have been found.

AMPHORÆ OF TERRA-COTTA. Of these seventy-five have been found; and of handles of amphoræ, with the stamps of the *fabrique*, one thousand eight hundred and fifty-eight, besides fourteen of the large *Dolia*, in each of which a man might be concealed. These are placed in the Tabularium on one side of the steps that ascend to the upper floor.

SMALL VASES. Fifty-five have been found, of these seventeen are for the table and ten are smaller drinking cups. Three of the same size are of bronze, and

two of glass.

LAMPS OF TERRA-COTTA. These number one thousand one hundred and fifty—some of them are of uncommon form.

ANCIENT BRICKS. Six hundred and forty, many of them

with brick stamps or butter.

RINGS. Thirty-four of bronze, two of silver, and one of iron.

STYLI FOR WRITING. These number seven hundred and eighty-nine; one hundred of bronze, and six hundred and eighty-nine of bone.

HAIR PINS. Eighty bronze and fifty iron.

OTHER PINS. Six hundred and eighty-nine bone, one

hundred bronze, two silver.

Inscriptions. One hundred and seven inscriptions have been collected, and are preserved for the Museum.

A catalogue is given in the Bulletino of not less than one hundred and seventeen different classes of objects that have to be described, if this has not already been done, and of some classes the number is very large, and they will require a very large space to display them.

It is not my intention to dwell upon any of these objects; I leave them to others who have made them their special study, and look forward with interest to future numbers of the Bulletino to read an account of them by the learned editors.

I will conclude by again referring to the principal objects for the preservation of which steps should be taken before it is too late.

I. The great prison of the time of the Kings of Rome (the subterranean part), now cellars under houses. I have rented part of this for some years, and have made considerable excavations, and I am liable to be called upon to fill them up again if it is not purchased. It is in the line of a proposed new street from the south end of the Corso to the Forum Romanum, and as the levels have to be altered, is very likely to be destroyed, but if purchased the Municipality could be induced to make a deviation from the proposed line of the street to preserve it.

II. A strip of land across the valley from the Cælian to the Aventine. Upon this is a gardener's house, made out of a piscina of Trajan, of which the tower, at the east end, close under the Cælian, is built upon a tower of tufa that was one side of the Porta Capena. Part of this strip of land is in the garden of the Monks of S. Gregory, which must be sold, to comply with the new law. At the other end of this strip of land is the Piscina Publica, the ruins of which, of the time of Trajan, are close under the Aventine. This is at the north end of a large vineyard, and may easily be separated This strip of land was the bank or short agger of Servius Tullius, with the aqueducts upon it, and leads straight to the Piscina Publica, forming the northern boundary of the vineyard. If this were shortened twenty yards, the agger might be made public property.

III. The Porta Lateranensis. This ancient gate in the city wall, long closed, fills the angle formed by the projection of the old Lateran Palace and that part of the wall. gate is concealed by earth, which has been thrown against it for the purpose of cultivation. The earth should be

cleared away and the wall and gate rendered visible.

IV. The cave under the Viminal, which formed part of the Lavacrum of Agrippina, but is much earlier than her time. It was called a cave of Mithras in the seventeenth century, but it is more probably a very early tomb. Close to this is an aqueduct or conduit leading through the Vimi-

This should be cleared out and preserved.

V. Part of the house of Pudens, on the other side of the The cellars are of the time of the Apostles, the construction being similar to that of the Pantheon. This was a large palace, in part of which the church of S. Pudentiana was made in the second century. The part which I proposed to have purchased for an Anglican Church has been sold and a house built upon it; but at the back of this house, in the courtyard, is another portion which might be purchased, and in which there is reason to believe that two storeys of underground chambers of this early period still exist.

VI. The Porticus of Caracalla and Heliogabalus, with the bath chambers under it, between the main building of the Thermæ and the road, now in the vineyard of Signor Brocard.

The history of the city of Rome is part of the education of every child, and these valuable relics are important evidences of the truth of that history.

## HISTORICAL PHOTOGRAPHS ILLUSTRATIVE OF THESE RESEARCHES.

## I .- FORUM ROMANUM.

<sup>&</sup>lt;sup>1</sup> The numbers are the Photographer's numbers (to find the negatives) and refer to Mr. Parker's Catalogue (those marked \* are from drawings). These photographs can now be seen at Mr. Stanford's, Charing Cross, London.

TEMPLE OF ROMA (?)—Doorway of the Cella, at the south end,	
C. A.D. 100, now in the Monastery of SS. Cosmas and Damian No.	850
PORTICUS OF NERO, C. A.D. 60, on the Summa Via Sacra, Arcade	
against the Cliff of the Velia (?)	1062
PORTICUS OF NERO ARCADE,—of brick, built against the Cliff of the Velia (?), with the pavement of the Summa Via Sacra in front	796
PORTICUS LIVIÆ (?) Apse in the centre of the great platform, usually called the Temple of Venus and Roma, rebuilt by Maxentius.	787
Second Apse in the centre of the great platform of the Porticus; of the time of Maxentius	788
III.—COLOSSEUM.	
Subterranean passage at the south end	3201
Several small chambers, and passage below the level of the area Under the area, showing some passages and walls of different	3202
	3205
Part of these are evidently rebuilt of old materials when the level	
was raised. Some of the walls are of stone, with vertical grooves, originally used for sluice gates; the greater part are of brick. The	
older portion probably belonged to the Vetera Naumachia, on the	
same site, before the great arcades of the Colosseum were built round	
it. Naval fights (that is, river fights) in the old Naumachia, at the	
time of the dedication, are mentioned by Dion Cassius.  View in the Colosseum, with a fragment of an Inscription	3204
IN . THEATR . LECEPLU	
. ICET P. X I I	
This inscription, is important, as showing that the Flavian Amphi-	
theatre was also called a Theatre indifferently. Dion Cassius fre-	
quently uses the word Theatre for it, which has not always been acknowledged by scholars.	
	100.
Amphitheatre, from a coin of Vespasian	488A
Part of one of the upper Corridors, with a Staircase	1763
Part of one of the upper Corridors, with the channel for water .	
Inscription in one of the upper Corridors	1759
	1700
Fresco painting of a Mediæval View of Jerusalem over the entrance View from the north-west, with the Meta Sudans	1194
	1195
The Meta Sudans, or remains of the Fountain in front of the	
Colosseum	302
M. L. C. Jens from a coin	100 ~