Some Considerations On Roman

"Triumphal Arches"

R.T.Bruère

American Classical School

Athens 1937

For many years scholars have been speculating in regard to
the so-called "triumphal arches", with the result that a considerable
number of opposing theories has arisen concerning these monuments.
From the existing remains, however, one is able to answer some of
these theorists, and certain conclusions may be reached which seem
not unreasonable. Then, in addition to the remains themselves, there
are the inscriptions on the arches which are still "in situ" and
those which may be recognized as belonging to a particular arch. In
some instances as well the ancient authors have left us references
to the arches, and these have helped to swell the evidence at our
disposal. Therefore, from the literary material and the actual monu-
mental remains it is possible to place the arches within certain
periods, and in many cases to assign an exact date to them. In this
paper, however, the chronological order of the arches will not be
given, but mention will be made of some of the more important ones
which typify a period or a class of arch. It will of course be im-
possible to treat every arch that has survived or of which mention
is made in the ancient authors, but the function of the arch, its
historical development, its schemes of decoration, and several of
the more interesting of the monuments themselves will be succinctly
discussed.

It seems appropriate to begin the discussion with a descript-
ion of the form of the monument in question. The so-called "triumph-
al arches" are free-standing and have one passageway under the cen-
ter, as is the case with the arch at St. Rémy (ancient Glanum,

France)[1], or two openings as at the Porta Nigra at Trier,[2]

---

[1] Ferdinand Noack, Die Baukunst des Altertums, Fig. 146

[2] Ibid. Fig. 155

three entrances as that at Orange in Provence[1], or four openings
as that at Tebessa[2].   They were placed over a road, at a cross-
road, at the end or at the middle of a bridge, or at a mountain
pass. The arch which was placed at the crossroad was called a
quadrifons, an example of which is the arch at Tebessa mentioned
above and referred to in note 2 of this page. Examples of the arch
at the end of a bridge may be found in the arches erected at St.
Chamas in France at either end of the Roman bridge over the Toulou-
bre.[3]   The arch at the middle of the bridge at Alcantara in Spain
may be offered as an example of that type.[4]   There are statues and
reliefs for decoration on the façades, and this varies from period
to period depending on the taste and fashion of the age. The passage-
ways are flanked by pilasters or columns which are free-standing or
engaged, and which have no structural value for the edifice. In some

---

[1] Ibid. Fig. 152

[2] Supplementary Papers of the American School of Classical
Studies in Rome, Vol. II, 1908, article by C. Densmore Curtis,
Fig. 13, p. 71. (This article is refered to as Curtis in the
rest of this paper).

[3] Ibid. p. 38

[4] Ibid. p. 49, fig. 3

of the arches the sides have been left plain, but others have
rather ornate sculpture as that found on the arch at Carpentras [1].
The plain sides may be due, possibly, to the fact that these arches
were derived from arcades, or because they were joined with walls
to form a means of fortification. But, what seems more probable,
the faces which were seen by the passerby were decorated, while
the sides, which in many cases would be unnoticed and out of sight,
would be left plain. Above the archivolt and the main supporting
members there is a straight or a projecting entablature; and on
top of this entablature is an attic, or sometimes a row of bases
for statues as at Orange. Some of the arches have triangular
bases as at Uzappa [2] or at Mactaris [3]. On top of this bronze
statues or chariots rested, but of these no remains have come
down to us, unless possibly the bronze horses of St. Mark's in
Venice once belonged to the Forum of Trajan in Rome.

The arch appears to have had many different uses, about
most of which definite information is difficult to obtain. How-
ever at this point in the paper it may prove interesting to ment-
ion some opinions of scholars anent the function of these arches.
According to Curtis, the function of the free-standing arches
was to bear inscriptions, bas-reliefs, and statues, either of the
emperor or of members of the imperial family, or finally of private

---

[1] Curtis, _Roman Monumental Arches_, Fig. 2, p. 41.

[2] Ibid. Fig. 5, p. 53.

[3] Ibid. Fig. 4, p. 52.

individuals. They had no practical use, and were simply elaborate
and honorary bases, similar in intention to the columns of Trajan
and Antoninus Pius."[1] Curtis does not wish to employ the term
"triumphal arches" which he considers a misleading appelation,
and consequently refers to the structures as "Roman Monumental
Arches", as in the title of the article we have quoted above.
These arches were not erected until a relatively late period, and
then for the purpose of bearing ornaments and statues not as a
rule directly connected with triumphs, although they were often
decked out with the spoils of the latter as well.[2] Cagnat and
Chapot hold that the triumphal arches were monumental gateways
which were used to mark the approach or the entrance to a city,
or the entrance to a public place, or used for ornamental purposes
on a bridge.[3] These arches, assert Cagnat and Chapot, have a
political and religious significance, as well as being designed
to commemorate the deeds and victories of an emperor, as a number
of the arches undoubtedly were. And, according to these authorities,
the name is derived from the temporary monument in the form of an
arch which was put up at the time of the actual triumphal pro-
cession. In Courbaud's discussion of the function of the arches,
the belief is expressed that they were raised to celebrate a mili-
tary exploit or to glorify the victories of an emperor.[4] But to

---

[1] Curtis, _Roman Monumental Arches_, p. 26

[2] Ibid. p. 27.

[3] R. Cagnat et V. Chapot, _Manuel d'Archéologie Romaine_, Paris 1916
p. 76.

[4] E. Courbaud, _Le Bas-Relief Romain_, Paris, 1899, p. 375.

Frothingham these had a more practical value; and in each of
this successive articles he has attempted to bring out the pre-
ponderantly practical aspect of even the very earliest of the
arches. To him there seemed to be colony or municipal arches
which were erected at the point "where the principal road,
before entering the town, intersected the pomerial line or ditch. " [1]
He continues saying that " it served the purpose of marking the
religious and legal line of demarcation between city and country
jurisdiction, as well as the practical purpose of an octroi
boundary. " [2]   But these municipal arches went back to earlier
territorial arches which were raised when life was of a more sim-
ple nature, and these arches, believes Frothingham, had been used
in an analogous way by the Etruscans and adopted by the Romans
together with many other customs of a semi-religious description
when the Romans had not yet abandoned the rural for the urban ex-
istence. So Frothingham argues that they were boundary arches, and
he gives as an example an arch which marked the boundary of the
Empire on the Danube, an arch erected by the Emperor Trajan. There
are other examples cited by him of arches marking boundaries in
Spain, in Cilicia, and Africa, while others are on the outskirts
of a colony or on a line between a city and a military camp as is

---

[1] A. J. A. Vol. XIX (1915) Article by A. L. Frothingham, The
Roman Territorial Arch, p. 155

[2] Ibid. P. 155seqq.

the case at Lambaesis. "As was the case with urban arches,
with those of the pomerium, of the city gate, of the propylaea
of temple and forum areas", Frothingham says, "the boundary arches
showed where it was permissible to pass."[1]   If such boundaries
were not heeded the victim might be punished with the death
penalty. From these theories one may see that there is a tendency
to break away from the term triumphal arch" and that a new name has
been suggested which is more inclusive and indeed much better ad-
apted to a monument which evidently served many different purposes,
although such a sound scholar as Courbaud adheres to the older
school of thought and keeps the traditional name, a name be it
said very rarely employed in Roman times, as there are only five
examples of its use in the ancient authors[2] up until the end of
the Empire . But there are inscriptions which prove that the
arches were erected in honor of various emperors, as was the arch
of Titus on the Via Sacra at Rome,[3] and the other one in the Circus
Maximus, erected, as its inscription attests, to commemorate the
victories of the same emperor in Judea.[4] However the arches of
a strictly triumphal nature are only a part of the whole group of
monuments, others of which were surely used to mark boundaries as
was the Arch of Hadrian at Athens[5] or were built for memorials

---

[1] A.J.A. Vol. XIX (1915) p. 174.

[2] Curtis, p. 27.

[3] C.I.L. VI, 945

[4] C.I.L. VI 944

[5] C.I.L. I. 520

[1]

and adorned with statues in memory of private individuals
or were entrances to a city or to a public building and thus
commemorating the founding of the place to which they gave acc-
ess, and honored the Emperor under whose rule the monument was
built. A similar practice may be observed in the custom of in-
scribing the name of the Emperor on amphitheatres, bridges, and
other buildings of a public nature.

The function of the arch may best be made clear by describing
its origin and its development. There is a tendency to trace the
origin of the arches to a wooden prototype or _iugum_ which was con-
structed at the time of the return an army from an expedition outside the
city, which was first apparently of a purely magical nature, used
to scrape off the foreign _mana_ acquired in the couse of the ex-
pedition and to purify the soldiers before the entered the city, [2]
but which soon lost its magical function and began to be decorated
with spoils and flowers in the case of a victory, the Romans them-
selves having forgotten the original purpose ~~function~~ of the arch. At a
later period the wooden arch was replaced by a stone one, to make
the memory of the victory more lasting. Cagnat and Chapot believe
that the stone arch developed from such a temporary one erected in
honor of a victory; and that the statues that were first placed
above the people on columns were later installed on arches in ord-
er to have a superior position. The earliest arches of this sort,
according to these authors, were the _fornices_ [3] which were erected
in Rome, and these pre-imperial arches are mentioned by Livy [4] as
being erected by L. Stertinius from spoils won in a Spanish cam-

1---C.I.L. III, 2922
3---Cagnat et Chapot- op. cit. p. 75.
2---H. Rose, "Primitive Culture in Italy, p.
4---Livy, XXXIII 27, 6.

paign, all three of which had gilded statues. The other arches dating from the pre-imperial period are:the one erected by P. Cornelius Scipio Africanus Major which was decorated with statues, and the one raised in the Forum by Quintus Fabius Maximus in honor of his campaigns against the Allobroges. The first of these is mentioned by Livy[1], and the latter by Cicero. Cagnat and Chapot also think that these arches coincide in appearance with the the city gates save for the fact that they are not connected with a wall, and therefore their sides may be decorated with sculpture.[3] The opposite view, in regard to the decoration of the side walls, is found in "A Dictionary of Greek and Roman Antiquities" under the rubric arcus triumphalis, where we find the theory "that the triumphal arch recalls the original, the city gate in the concentration of ornament on the façade; while the sides, which in the city gate are buried in the wall, are comparatively plain. "[4] These authors hold that the "arcus triumphalis" was "the gate by which a general celebrating a triumph led his army into the city, on which occasion the gate was adorned with trophies and other memorials of the particular victory being celebrated." From this[5]

1
Livy, XXXVII, 3, 15

2
Cicero In Verrem 1 , 19 "videt ad ipsum fornicem Fabianum in turbe Verrem."

3
Cagnat et Chapot. op. cit. p. 74.

4
William Smith, A Dictionary of Greek and Roman Antiquities, London 1890, p. 172.

5 Ibid. p. 172.

type of gate other arches were erected to commemorate single
victories, and the trophies and memorials were carved on them
to show the achievement of the general or Emperor, according to
the writers of the Dictionary. Courbaud believes that the Romans
decorated the public buildings along the route of the procession
and that it was the duty of the aediles as mentioned by Livy (IX,
40) to attend to the decoration of the Forum on such an occasion.
But, he thinks, there were probably no garlands from which the
later triumphal arches could be derived, and which ~~hung~~ would have hung over the
street somewhat in the manner of an arch. What is more probable
according to Courbaud is that the Romans copied the Greek arcades
and that the arch is a single arcade which formed a separate monu-
ment [1] ; he regards as unlikely the theory of the derivation from
the _fornices_ of the Republic. The Hellenistic Greeks had adopted
the arch, says Courbaud, which had previously been used in Chaldea
and Syria, and even the gates themselves had been put up in the
form of the _tetrapyla_ at an intersection of streets, and at the
ends of the thoroughfares there were gates with two façades in
some of the Alexandrian villages. The latter, to quote Courbaud,
were "les véritables précurseurs des arcs de triomphe romains" [2]
These arches, says Courbaud, did not appear until the second half of
the first century B.C. after Caesar had been in Egypt. [3] Frothing-
ham has traced the development of these arches in his various articles

---

[1] E. Courbaud, _Le Bas-Relief Romain_, p. 272.

[2] Ibid. p. 374.

[3] Ibid. P. 375.

and has some ingenious theories regarding their origin.

In one of these earlier papers Frothingham has attempted to prove that the "triumphal arch" originated with the Greeks rather than with the Romans, and he takes his illustrations from a passage in Pausanias.[1]   Here Pausanias describes a "free-standing gateway in the market-place of Athens, surrounded by a group of sculpture and commemorating a victory."[2]   Frothingham considers that the Romans adopted this type of gateway and inserted an arch under the architrave, leaving the gable and the columns in their traditional positions. Frothingham has not however, one feels, been able to back up his theory with sufficient material in this instance. In a later article[3] he traces the development of the use of the arch and shows how it served as a boundary mark for a colony. Not content with this he carries the theory back to the first boundaries which were used in ancient Italy, and he points out that these boundary lines had been adopted by Rome from Etruria. He is looking, therefore, for the origin of the "urban and municipal arch in a territorial arch that evolved out of some boundary mark previous to the use of the arch, such as a wooden lintel across two uprights or a trilithic stone gateway."[4]   The example which he quotes is the

---

[1] A.J.A. Vol. V. (1901) p. 27.

[2] Ibid. p. 27.

[3] Revue Archéologique, Paris 1905 (Vol VI).

[4] A.J. A. Vol. XIX (1915) p. 156.

Tigillium Socorum in Rome, which was a sort of beam over the road

and which existed in the time of the kings. The early sanctity in

regard to these boundaries of the territories which persisted

with the tribal state were transferred to the life of the "oppidum"

when the rural life gave way to the urban one. Similar rites ex-

isted in the dedication of the territory and the later colony, and,

as Frothingham says, "so in the territory, each piece of property,

marked by the ditches and boundary stones, was reconsecrated by its

owner," [1] just as the city in later times consecrated its boundaries.

But Frothingham had difficulty in finding an example of such an arch

in Italy because such an arch were not used very much until the time

of Augustus, and the new territorial divisions which were made

 under Augustus tended to blot out the older territorial divisions.

The example which he finally unearths is known only from an inscript-

ion (CIL IX, 3304) and which probably belongs to an arch dedicated

to the Empress Livia, and which marked a certain boundary. So from

Rome and Italy the custom spread, and Frothingham gives a list of

such arches found outside of Italy. Some of these are known solely

through inscriptions, others from coins, and still others from

actual remains; and these arches, Frothingham maintains, were often at a

such a a considerable distance from the center of population in ancient

times and had no connection with any ancient buildings, and, there-

fore they must have been territorial and not city boundaries, and,

in fact, were "detached boundary marks." [2]   Some of the better pre-

---

1
A.J.A. Vol. XIX (1915) p. 156

2
Ibid. p. 164.

served arches which Frothingham has given as examples of these
boundary arches are cited here. In North Africa there is the arch
of the Zama colony which was probably put up by Hadrian when that
colony was founded; three other examples in this part of Africa are
the arches at Thugga, Membressa, and Lambaessis.[1]   Two arches are
mentioned which are located in Syria: one at Bab-el-Hawa,[2] and one
commonly called "Jonah's Pillar". In Cilicia there is the arch of
Bairamli[3], and the arch near Myriandus. Remains of one arch exist in
Macedonia near Philippi that did not in all probability, says Frothing-
ham, mark the triumph of that battle, since it was against Roman
custom to celebrate a civil struggle in such a way; he holds it
more likely that this was at the boundary of a colony Augustus
established after the battle. In Gaul there is the arch of St.
Chamas we have already mentioned. In speaking of the arches in
Spain, Frothingham says "it is curious that, of the few Roman mem-
orial arches that remain in Spain, the majority are boundary arches";[4]
and the arches mentioned in this country are those of Alcantara,
Bara, and Martorell. Thus in these instances he has shown the custom
of the Romans of marking the boundaries of their territories or
colonies. But Frothingham has called some of these "territorial"

---

[1] A.J.A. Vol. XIX (1915), Fig. 2, p. 166.

[2] Ibid. Fig. 3, p. 167.

[3] Ibid. Fig. 1, p. 162.

[4] Ibid. p. 172.

arches and others "colony" arches; in this way he has employed the term "colony" when referring to the territorial or the municipal division. However, some of these arches were evidently put up to mark the boundary of the Roman territory and to show the extent of that territory; and yet they could also be boundary markers between country and city jurisdiction.

In an earlier article which Frothingham wrote for the "Revue Archéologique" he has discussed the offspring of this "territorial arch". Here he states that these colony or municipal arches were placed on the line which the priest made around the colony when it was founded by Rome, and in Frothingham's words: "L'arc se plaçait, en règle générale, exactement sur la ligne du pomerium d'une colonie romaine."[1] The arch which was erected showed the privileges of the city, and the emblems of the city were placed on the monument as in the case of the arch of Kasrine. It also gave the period or the date of the founding of the colony, not the arch, because in many instances the arch was not put up until some years after the founding of the colony. There were, according to Frothingham, certain symbols which showed the unity between the colony and Rome itself, such as the figure of the sow which was put on the arch of Hadrian at Jerusalem[2], or the wolf represented on the arch at Antioch which was built by Tiberius.[3] But these arches were erected beyond the

---

[1] Revue Archéologique, Vol. VI, 1905, p. 226.

[2] Ibid. p. 222

[3] Ibid. p. 222

city gates which had already been built, and they show the boundary
line of a city under Rome's protection; and , according to Frothing-
ham, the significance of this line is lost sight of and there is
but the one in the end of the Empire. In order to link the community
or municipal arch with the "triumphal arch" Frothingham has given
the examples of the arches at Constantinople and at Rome which were
the only two cities where a triumph could be staged. Before these
municipal arches the triumphal processions were arranged, at a dis-
tance from the city gate which was joined, in most cases, with the
city walls. Within the city of Rome were the old tribal gates,
the old form of arch which was called the "Janus" after the god of
the same name. The older arches formed the arches of the Forum as
the boundaries of the city expanded, Frothingham explains; and as
the pomerium was changed so were the arches. The idea of the municip-
al arch changed from that of a religious boundary mark to a political
division, although Augustus tried to renew the old divisions. So this
custom of erecting arches was carried into the provinces as new
centers of Roman citizens sprang up; and Frothingham has laboriously
traced the development of the arch and in not a few instances has
made the evidence coincide with his theory.

Curtis believes that the Romans took certain elements from
the Greeks, and combined them into this type of monument. Some of
the ideas were derived from the early arches, remains of which
have been found at Ephesus, in Acarnania, and in Sicyon. In regard
to the form of the quadrafons the Romans probably took this from
the Greek tetrapylae which were used in Asia Minor at important

street crossings. Other practices in the Hellenistic cities,

such as the use of the columns as statue bases, and the arches

which were decorated in relief as one may see from the arches

employed as pictorial backgrounds in the Hellenistic reliefs

are all believed by Curtis to have contributed to the arch of

the Romans. He says: "From all these elements the Romans drew,

but as in the case of the amphitheatres, basilicas, and baths,

the combination of the elements is their own invention, and the

result is different from anything known before."[1] A passage from

the elder Pliny has been quoted by Curtis, to the effect that not

until the end of the Republic was the arch used as an adjunct to

triumphs, novicio invento, although arches had existed before.[2]

The arches which had existed before were the early fornices, but

there is no reason, holds Curtis, to consider these ~~in×any×wa×xx~~
monumental
~~×r×umphal~~ arches.[3] These pre-imperial arches were not built of

durable material or of material suitable for sculpture, and al-

though the triumphal processions had to go under them since they

spanned the road that the triumphal parade followed, it does not

---

[1] Curtis, p. 29

[2] Ibid. p. 27 (Pliny, N.H. XXXIV, 27 : Columnarum ratio erat,
attoli super ceteros mortales, quod et arcus
significant, novicio invento.)

[3] Ibid. p. 27

necessarily follow that the arch had been built as part of the
setting of the triumphal celebration. Even in the instances of
the Porta Triumphalis at Rome and the Porta Aurea at Constantinople,
Curtis thinks the passage of the procession under the arch is
purely because the arch happened to be on the road. The actual term
"arcus triumphalis" becomes common only in the later days of the
empire, and probably came from the observation of such monuments
as those of Titus or Constantine which were decorated with reliefs
of the triumphs of these Emperors. "Still later" says Curtis, "in
Renaissance times, arches were considered as indispensable adjuncts
of triumphs, and it is this later conception of their function that
has influenced all subsequent study of the subject."[1]

From these various theories we have presented in regard to
the development of the triumphal arch, certain seem more reasonable
than others. It appears extremely probable that the Romans received
their ideas for "triumphal arches from the Greeks, and that they
combined the elements which they observed abroad into a monument
typical only of Rome and her colonies. Probably they came into
contact xx with these elements in the Hellenistic cities of Asia
Minor or Egypt, because shortly after the Roman penetration of
these territories the arch appeared in memorial form in Rome and
in various of the Roman provinces. Some of these represented
triumphal processions which had taken place, others pointed out
the boundaries of the Empire which were probably determined in

---

1
Curtis, Roman Monumental Arches, p. 32.

a somewhat indefinite manner by the generals responsable for the aquisition of the territory, and only later given a definite mark. Still other arches were raised to show the rights of the various communities, and were dedicated to the guardian gods or to the Genii of the cities.

Already the form of the arch has been discussed, and there have been references to the form of decoration which has been employed in some of the monuments. But now a more detailed account of the decoration will be given. At either side of the arches opening there were pilasters or columns which were engaged; but these were later separeted from the wall and were free-standing. Above these the entablature projected as a ledge, and statues were perhaps placed upon this ledge. In some instances the pilasters had bases and capitals, while in other cases they had a simple moulding which acted as a capital and as a support for the archivolt. The passageway within was not always a vault, but only had the archivolt at the ends whilst the space within is rectangular and has a ceiling as at Lambaesis [1] or if there is a vault this is richly coffered as at Orange [2], and the side walls sometimes have reliefs as do those of the arch of Titus [3] or the arch at Beneventum. [4] The decoration progressed from the very simple

---

[1] Curtis, p. 31.

[2] Ibid. p. 32, (Illustration in Noack, Tafel 152)

[3] Noack, Die Baukunst des Altertums Tafel 147.

[4] Curtis, p. 51.

variety to the more ornate, and the light and shade is emphasized to a great extent. The spandrels were decorated, and the keystone was pushed up to the architrave in the form of a console, and received decoration. A frieze on the architrave, which represented some procession as that on the arch of Titus, helped to destroy the severity of the monument. In some arches the pylons were decorated, but in others they were left plain. In this paper, however, no detailed discussion of the decoration of the individual monuments can be given. The illustrations of the panels inside the arch of Titus at Rome, which follow on pp. 19 and 20, give an idea of the type of decoration employed in these arches. This particular arch was erected by Domitian to commemorate the victories of Titus and Vespasian, his brother and father; it stands on the ridge between the Palatine and Esquiline hills and spans the Sacred Way. "Of the arches now extant in Rome", Mrs. Strong says, "that of Titus is simplest in type---it consists of a central passage, flanked by piers adorned by columns acting as supports to the architrave."[1] Decoration is used to a moderate extent in this arch ; the frieze on the architrave, the pylons, and the sculptured panels are well known from the many illustrations made of them. The decoration of the inner passage has been particularly discussed because of the notoriety given it by Wickhogf in 1894. It was then he compared this to the masterpieces of Velasqez, and compared its technique to that used by the Spanish paint-

---

[1] Mrs. Arthur Strong, Roman Sculpture, London, 1907, p.106
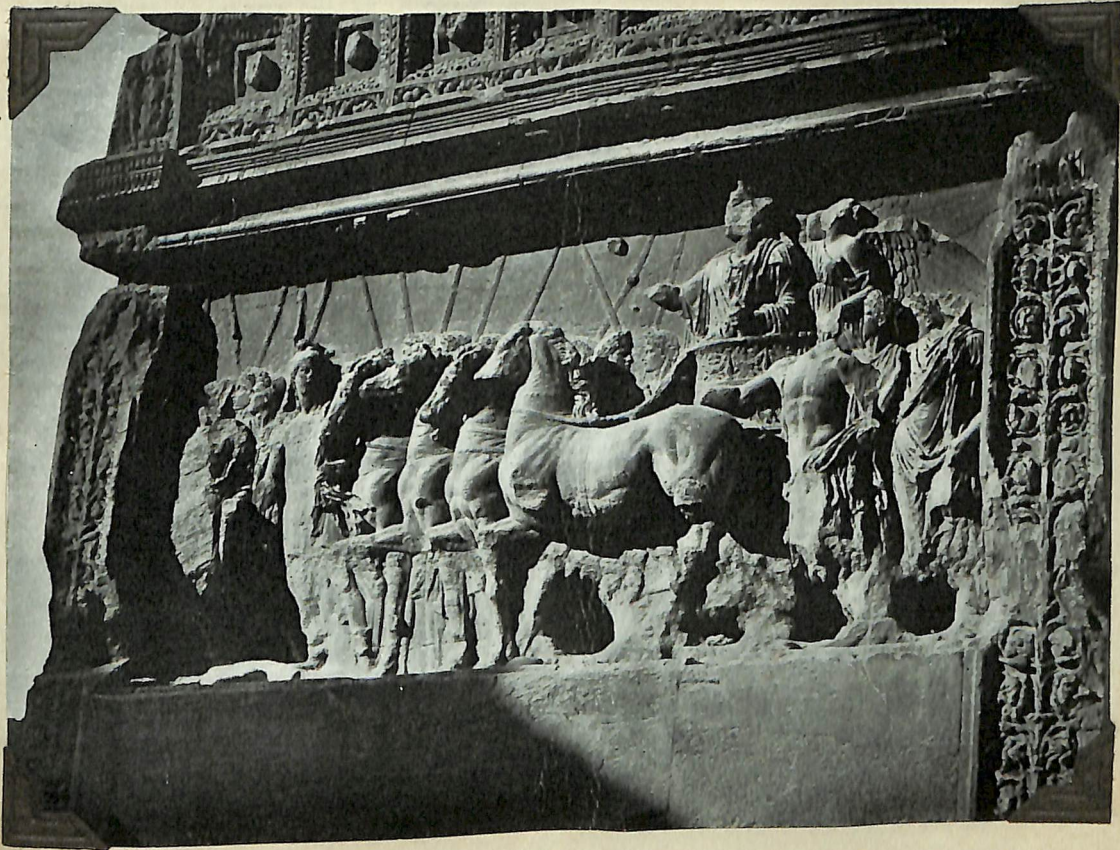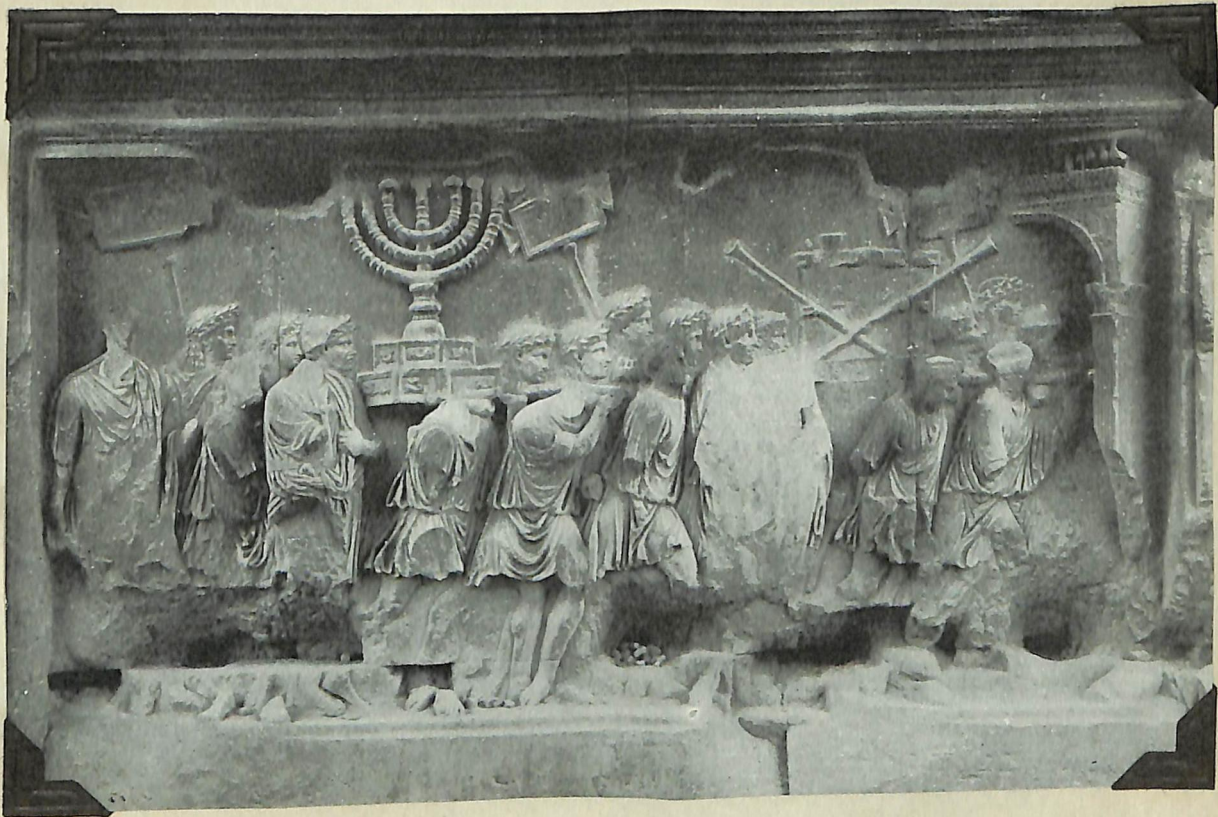
er. Other arches have interesting decoration, such as that of the
arch of Constantine, which apparently belongs to so many different
periods, or that of the arch at Orange.

Since so many of these arches still exist, scholars interested
in the matter have tried to compile lists of them. One of the
first to do this was Dr. Botho Graef, who published a list of
arches in Vol. III of Baumeister's "Denkmaler des klassischen
Altertums". This list did not satisfy Frothingham, who attempted
to make a classification of arches from the extant remains plus
the literary and epigraphical evidence. In the beginning of his
article Frothingham has stated the result of his investigation
as follows: "According to Dr. Graef's statement there exist 125
arches, and about 30 more, although destroyed, are known from
inscriptions, coins, and literature. This total of 158 I have
been able to increase mxxxmx to not far from 500."[1] It is not
possible to give a list of these arches here, or indeeed advisable
to do so, but it will suffice to say that Frothingham has divi-
ded his list into datable arches, early and imperial (nos.1-408)
and "undatable arches" (nos. 409- 466)[2] The evidence for the
existence of many of his examples is extremely scanty, and in
general it may be said that Frothingham shows a tendency to strain
and distort the evidence to make it fit with his theories. His
list however thanks to its thouroughness is the greatest single
aid to the study of these interesting monuments.

----

1 A.J.A. Vol. VIII (1904) p. 2.

2 Ibid. pp. 16-32.

REFERENCES

American Journal of Archaeology (A.J.A) Vol. V (1901); Vol. VIII (1904); Vol. XIX (1915). Articles by Frothingham.

Cagnat et Chapot: Manuel d'Archéologie Romaine, Paris 1916 pp. 74-84.

Corpus Inscriptionum Latinarum (C.I.L.)

Courbaud, Edmond: Le Bas-Relief Romain à Representations Historiques Paris, 1899, pp. 371-375.

Noack, Ferdinand: Die Baukunst des Altertums, Berlin.

Revue Archéologique, Vol. VI (1905) Paris. pp. 216-230.

Smith, William: A Dictionary of Greek and Roman Antiquities, London, 1890.

Strong, MRs. Arthur: Roman Sculpture, London, 1907.

Supplementary Papers of the American School of Classical Studies in Rome, Vol. II, 1908. C. Densmore Curtis, Roman Monumental. Arches .

+ + + + +