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CHAPTER 10

Function and symbol: the development of towns in Roman Dacia

Michael Dawson

The modernising trend in the theory of Roman towns, despite the recent reaffirmation of the parasitic city (Whittaker 1995), is towards the global identification and definition of economic function. In addition to the consumer city, three models are currently prominent the Wacher Leaveau theory of the consumer town which paid for its consumption through trade; the Hopkins model in which city dwellers paid for consumption in cash, in a modernised economy driven by the need to pay taxes in coin to Rome; and the archaeologists' model where a monetised economy developed through demand created by troops and officials paid in coin (Whittaker 1995, 110–113). To this list may be added the recent plea for wider inclusion of the social constituents of the ancient city (Laurence 1994, 133).

As universal models of the economic framework in which urban growth took place in the early Roman empire, each is limited by its own terms of reference. The consumer city rests heavily on the written evidence of the upper classes, the Hopkins model on taxation and that of the archaeologist by the limited quantity of coin found during excavation. Lastly the "social" model does not take sufficient account of the economic basis of social relations.

Despite the weaknesses of these models, each has a valuable contribution in developing theories of provincial urban development in the expanding empire of the first and second centuries AD. In this area one of the major subsidiary themes is the contribution of native populations to the development of towns. It has led to the definition of a new town type in western Europe; known in Britain as the "small town", in France as the "vicus", and in Germany as the "dorf" (Whittaker 1995, 110-113). These types are seen as evidence of developing market economies spurred by the involvement of indigenous populations. It is no coincidence that in these provinces considerable emphasis is placed on the Iron-Age trajectory towards "statehood", the "monetised economy", and "urbanism" (Haselgrove 1989, 1). However, a universal interpretation of the antecedent contribution of pre-Roman populations to Roman urbanism is complicated by two major factors. The first is that there are significant regional differences in the form of native urbanisation (Collis 1975, 177), even within the Rhine/Danube distribution of Celtic oppida, and the second is that Rome's attitude to urbanisation was pragmatic and varied in response to local conditions.

Although the stage is set for a re-appraisal of the nature of Roman colonial urbanism, this must be undertaken within a regional framework where the factors which separate the origins of provincial cities from those of further development are clearly expressed. In the formation of a province both aspects are fundamental to understanding the basis of urban development.

THE STUDY AREA

The Roman province of Dacia lay east of Pannonia beyond the Danube bend. In the first century AD the lazyges occupied the Hungarian Plain to the west and to the east the Wallachian Plain was occupied by the Roxolani, the provincial area between the two equating approximately with modern Transylvania. In Roman Dacia the provincial framework was based on three elements: the military, which was responsible for the main roads, the location of forts and veteran settlement; the civil infrastructure, responsible for customs posts, the governors' residence, and the means to exploit raw materials; and lastly political factors, such as the reward of allies, the judgement of the early governors, and the imperial will. Each had a considerable impact on the urbanisation of the



new province. The socially embedded tendency of Rome to overawe through imperial symbolism was also present. While explicit in the architecture of gateways, *tropea*, or triumphal arches it is also implicit in otherwise practical constructions such as the bridge across the Danube at Turnu Severin or the construction of roads (Purcell 1990, 12–13). These practical/symbolic gestures cannot be ignored in the creation of Roman provincial towns without risking the omission of one of the primary formative elements in the creation of a provincial structure.

Near contemporary historical sources believed the development of towns in Dacia was the direct responsibility of the emperor. Cassius Dio described how at the conclusion of the wars "Dacia became subject to Rome and Trajan settled cities in it" (Cassius Dio LVIII 14 1–5) and Eutropius (*Breviarum* viii.2) related how Trajan "removed infinite masses of men from every part of the Roman empire to cultivate the lands and inhabit the cities of Dacia". These statements from the fourth century cannot be taken at face value, as by this time the actions of the emperor had become synonymous with the progress of history. In Dacia there is evidence for direct imperial involvement, through provincial organisation and through legal promotion, and possibly the familiar use of *Hadrianum* in the title of Drobeta and Napoca, but there is also evidence for the influence of commerce.

In all possibly twelve Roman towns were created in Dacia, comprising:

- Colonia Dacica Ulpia Traiana Sarmizegetusa (IDR III/21).
- Municipium Aelium Hadrianum Napocensis (CIL III 14465), promoted colonia under Commodus (CIL III 963).
- Municipium Aelium Hadrianum Drobetense (IDR II 1), promoted colonia under Severus (IDR II 5).
- Municipium Aurelium Apulense (CIL III 986) promoted colonia Aureliae Apulense (CIL III 7773), col. nova Apulensis (CIL III 1176).
- Municipium Septimium Potavissensium (CIL III 7804), promoted colonia under Severus (Ulpian Digest 50 xv 1.9).
- Municipium Septimium Apulens (CIL III 1051).
- Municipium Romulensium (IDR II 351), promoted Colonia Romulense (IDR II 357, 324).
- Municipium Dierna (CIL III 14468).
- Colonia Malva (CIL XVI 144).
- Municipium Ampelum (Apulum XX 1982, 120–121).
- Municipium Septimii Porolissensis (An. Ep. 1944 nos 52-54).
- Municipium Tibiscensium (IDR III/1 132).

The organisation of the Dacian towns reflected western practice and later settlement led to the development of a social structure which shows little evidence of Dacian involvement. Three urban inscriptions attest the possible presence of Dacians: Aurelius Apulenses (Radu 1961, no. 19) from Apulum, P. Aelius Dacianus (*CIL* III 867) from Napoca and Daciscus (*IDR* II 50) at Drobeta, although they may be Roman adoptions from local place-names. This apparent insularity of Roman urban communities may have been reinforced by a trend within the urban hierarchy towards the occupation of several offices by one individual (*CIL* III 1051, 1100, 1209, 7804, 7966, 14468) who could have lived in one place and held office in another, such as C. Servius Sulpicius Flaccus, decurion of *Col Dacica Sarm*, a veteran of *XIII Gemina* who was buried in Apulum (*CIL* III 1196).

THE EARLY DEVELOPMENT OF ROMAN TOWNS

Historically the late-Iron-Age settlement pattern of Dacia is characterised by hillforts, which suggests it was part of the zone of Celtic *oppida* on the northern bank of the middle Danube. The Dacian form of the *oppida* type of site is different from the other "oppida" forms and typically includes a defended hilltop or promontory with a D-shaped settlement on a lower slope. Romanian archaeologists have adopted the term *dava*, a Dacian suffix meaning place or settlement, and in contemporary reports they are identified with places cited by Ptolemy as the *polis* of Dacia (*Geographia* III 8,3). Possibly contemporary with the *dava* sites are the *stiina*, upland locations with evidence of periodic occupation, comparable to the nineteenth-century pastoral refuges from which they take their name.

Recent research suggests Dacia can be sub-divided into ten geographical regions which have distinctive settlement patterns (Bergquist 1989, 152–213), and work in the lowland areas, in particular the larger valleys such as the Mureş, has begun to establish the existence of a more varied pattern.

Of the ten regions, the Luncani Platform is the most radically different. This mountainous area comprises several identifiable ranges where hillforts appear to ring approaches to the centre of the massif. Tilisca, Câpîlna, and Cugir seem to form an outer ring around the Orestie Mountains; whilst Gradistea Muncelului, Costesti, Blidaru, Piatra Rosi, Virful lui Hulpe and Fetele Albe form the core of protected sites. Few of these sites have been fully published, making interpretation difficult. Watch towers, walls, and fortified gateways at forts in the Orestie Valley are clearly defensive, whilst monumental structures at Gradistea Muncelului (Sarmizegetusa Regia) (Glodariu et al. 1988, 105–125) and Costesti (Glodariu 1983, 97–100) may be religious, perhaps to be identified with the Dacian deity Zalmoxis. At Gradistea and other sites there are large craft workshops but little evidence of settlement.

It is these sites on the Luncani Platform which many consider to be the "cities" of pre-Roman Dacia (Daicoviciu 1975; Florescu 1985, 9–12). Nandris (1976), surveying the *dava* sites and the external influences on Dacia, concluded that the evidence was insufficient to demonstrate the development of urbanisation on the western model, whilst Daicoviciu (1983, 36) considered the *dava* to be the epitome of the Greek city state. Bergquist (1989, 226–227) has suggested that the 200km² of the Luncani Platform may represent a diffuse urban landscape comprising the dispersed parts of a poly-focal urbanism.

Despite the lack of consensus, the Dacian urban form seems to include elements that may have originated outside the core area in Celtic traditions (Nandris 1976) and through interaction with Graeco-Roman civilisation during the first century BC and first century AD (Wilkes 1984). Celtic Europe may have been the greater influence, visible not only in artefacts (Zirra 1978) but possibly in the adoption of the hillfort and the use of *murus Gallicus* in some defences like that of Cotesti-Blidaru. The Graeco-Roman contribution includes not only the importation of material culture but, at Gradistea Muncelului, where there are Greek tally marks in the stone work, foreign craftsmen. The distribution of imported artefacts, including Greek *amphorae* and bronze vessels from the colonies on the Black Sea coast, republican and later coinage (Crawford 1980, 51–52) as well as Samian from the west, demonstrates the range of contacts between Dacia and the classical world.

Interpretation of the indigenous response to these external forces has been dominated by perceptions of the Dacian state. Dacia was united under Burebista in the first century BC and again under Decebalus at the end of the first century AD and Mocsy has gone so far as to suggest that the Dacians were "the only barbarian race in Europe that managed from time to time to establish a stable state" (Mocsy 1974, 94). The orthodox view of the development of the sites on the Luncani Platform is that a centralised system, the inner and outer rings of hillforts around the massif, grew up as the focus of the Dacian state in the first century BC.

This imperial model led Florescu (1985, 10–13) to suggest that the hillforts were administrative centres as well as military and religious focii, with royal control exercised from Gradistea Muncelului (Sarmizegetusa *Regia*). In 1976 Glodariu (1976, 97–102) argued for a market economy in the Dacian state which was exploited by Greek and Roman traders, where artefact assemblages represent not only the development of longdistance trade but the operation of recognised trade routes.

The model of an established and unified Dacian state with a developed market economy has several weaknesses. The distribution pattern of imported artefacts within Dacia can be seen to concentrate on rivers and does not focus on the hillforts; instead, it includes sites in areas of difficult terrain where transhipment seems to have occurred. Such sites, identified from the presence of broken *amphorae*, are traditionally interpreted as the places where goods were transferred to less fragile barrels or wineskins (cf. Tolosa, Chalons-sur-Saône in Gaul), but such sites may also result from controls exercised on territorial boundaries.

The possibility that the Dacians comprised several tribal polities is consistent with Ptolemy who identified fifteen Dacian tribes (*Geographia* iii 8.3) and with recent research which suggests the fragmentary Dacian king list does not necessarily indicate a direct line of descent between Burebista and Decebalus (Bergquist 1989, 51).

Such alternative interpretations question the rôle of the "dava" sites either as economic nodes within the framework of an established state or as the origin of centralised distribution (Glodariu 1983, 72). It seems equally plausible that they served as seasonal assemblies, and market places for extensive, mobile, pastoral communities. They may also have been places of refuge where watch towers, defensive ramparts, and walls, if necessary, could be adapted to a wider system of defence. Instead of the urban focus of a Dacian state, the hillforts were probably the religiously charged, central places of tribal polities, which in times of stress were able to come together as a confederation under a single charismatic leader.

In both the first and second Dacian wars Rome's only allies had been the semi-nomadic Iazyges (Wilkes 1984, 73) and in the conduct of the war by Decebalus – the death of Longinus in captivity, the attempt on Trajan's life, the pursuit and death of Decebalus himself and of other tribal leaders – there is little evidence that Rome was prepared for widespread cooperation. Some evidence of the atmosphere prevailing in post-conquest Dacia seems apparent even in the provincial structure.

The first city, colonia Dacica Ulpia Traiana Sarmizegetusa, not only fixed a small immigrant civil population in the centre of the province, but emphatically moved the focus of urban development away from the Dacian centres, transferring it to the spinal route of the military road, the *via* Traiana Paetesina (CIL IX 2600 = ILS 6523).

Ulpia Traiana was located in or close to a fortress once occupied by the *legio IV FF* (Alicu 1980) and closed one of the southern passes to Sarmizegetusa Regia; with the forts at Micia and Apulum it dominated approaches to the Luncani massif from the north-west. Founded by the first provincial governor, D. Terentius Scaurianus (*IDR* III/2 1), the choice of location indicates the shifting military balance of the post-conquest period, when troops were dispersed to the border areas, rather than to meet the requirements of a programme of urbanisation.

Possibly recognising the inhospitable location, Trajan provided a further incentive to immigrant settlement at the *colonia* with the provision of *ius italicum* (Ulpian *Digest* 50 xv 1.9). Trajan also chose the name Sarmizegetusa. Until recently seen as a conciliatory gesture by Hadrian, an inscription found during excavation of the *forum* has established that this name was used from an early date (Piso 1994). Linked by Cassius Dio to the Dacian stronghold, there is no evidence at the *colonia* for a pre-existing Iron-Age site, and the transposition of the name from the hillfort at Gradistea Muncelului was intended to marginalise further whatever remained of the political framework prior to invasion.

No more towns were created under Trajan and evidence of Dacian involvement in the early province is limited. Many of the hillforts, like Câpîlna (Glodariu and Moga 1989) and Tilisca (Lupu 1989), were abandoned immediately after AD 106. In the rural areas the adoption of Roman material culture was ultimately extensive, but with no clear chronological framework, the character of continuity in the post-conquest period is uncertain (Protase 1980). At some Roman forts, Micia, Orheiul Bistrita, Bretcu, and Risnov, the recovery of Dacian ceramics within the defences indicates trade or requisition from surviving Dacian communities.

Within a generation of the conquest Dacia was in revolt. There are no details of the situation but it was sufficiently serious for Hadrian to draw back from the Wallachian Plain and to consider complete withdrawal (Birley 1997, 84–85). By the end of AD 119 Dacia had been reformed into three smaller provinces. Initially a single province with a consular governor (Stein 1944; Macrea 1967) it was now subdivided into Dacia Inferior, Dacia Superior, and Dacia Porolissensis. Dacia Superior was under the jurisdiction of a praetorian legate at Apulum and a procurator (Stein 1944, 113) and the two remaining provinces were administered by procurators alone. Under Aurelius two new provincial names appear, Dacia Apulensis and Dacia Malvensis, and although territorial changes may have been involved Dacia remained divided into three procuratorial

provinces, including Dacia Porolissensis, under a single consular governor of the *tres Daciae*.

The Hadrianic re-organisation initiated a period of urban promotion. Still firmly based on the military framework, two *municipia* were created close to or based on the extra-mural settlements of forts at Napoca (modern Cluj) in the north in the Somes valley, (CIL III 14465, 6254, CIL VIII 3021) and Drobeta (modern Turnu Severin) (IDR II 1) at the northern end of Apollodorus' bridge over the Danube. Apart from the date of the promotions, a single inscription of AD 209–211 links Drobeta with the procurator Aurelius Heraclitus (IDR II 15), and therefore probably Dacia Inferior/Malvensis, whilst at Napoca several inscriptions were dedicated by the procurator of Dacia Porolissensis (CIL III 853, 856, 857, 865, 7659, 7662).

7662]. Meanwhile Dacia Superior was probably administered by the praetorian legate who was resident at Apulum, where a large building near the fortress of the *leg XIII Gemina* may be the remains of the governor's palace (Cserni 1913). The procurator of Dacia Superior, however, may have been located at Ulpia Traiana, where the palace of the procurator of Dacia Apulensis has been identified close to the centre of the *colonia* (Daicovciu et al. 1983, *IDR* III/2 294). Initially important as a financial centre, the large *territorium* of Ulpia Traiana, stretching across the centre of the province, may, until the promotion of Apulum to city status, have equated to Dacia Superior. In the third century the *concilium tres Daciae* met at Ulpia Traiana, suggesting that throughout the occupation it retained a rôle as provincial centre.

The second provincial re-organisation under Aurelius also seems to have required the promotion of an appropriate civil centre and the *vicus* at Apulum (modern Alba Iulia) became a *municipium*. Apulum was located in a bend of the river Mureş where two areas of extensive structural evidence, a northern area on higher ground around the legionary fortress and Partos, on the banks of the Mureş, are separated by a large cemetery. Four inscriptions from Partos (Popa 1976, 66; *CIL* III 1008, 1093, 1100, 1214) characterise the lower settlement as the legionary *canabae*, probably first established by the *legio I Adiutrix* before it left for the east in AD 114 (*CIL* III 1008). The latest known date for the use of *canabae* is 4th October 160, on a wax tablet from the Roşii Montana (*IDR* I Tab Cer VIII 223–226). Promotion of one of the settlements to *munic(ipium) Aur(elium) Ap(ulense)* (*CIL* III 986) is first recorded in AD 180 with a later promotion to *col(oniae) Aur(eliae) Apul(enses)* (*CIL* III 7773). The second settlement at Apulum was promoted to *municipium*, attested on an altar dated 23rd May 205 (CIL III 1051). The pattern of two legally constituted communities at the site of the legionary fortress contrasts with the municipalisation of communities on the middle Danube, where Mocsy has argued the *canabae* ceased to exist as a separate community (Mocsy 1974, 219). Ultimately a *col(onia) nova Apul[en]s(is)* was recorded in 250 under Trajan Decius, possibly the promotion of the remaining *municipium* but more likely an indication of renewed status under Decius who was *restitutor Daciarum (CIL* III 1176).

The fortress clearly provided a nucleus around which the settlement at Apulum developed, but the effect of the military may have been muted, the size of the garrison probably varying considerably as troops (Perring 1991, 38) were posted elsewhere. There were possibly as many as sixty forts in Dacia (Cataniciu 1981) but few seem to have developed vicus settlements. Micia in the west had a vicus in the territory of Sarmizegetusa; Illisua (jud. Bistrita-Nasaud), in the north-east, had a vicus linked to the fort by a paved road (CIL III 787-793); Gherla (jud. Cluj) near Napoca may have had an early vicus (CIL III 294, 832-834, 6246; XII 539-543); and in the south, coin evidence alone suggests Acidava (jud. Olt) developed a vicus settlement under Trajan (Tudor 1968a, 264), as did Hoghiz (jud. Olt) and Sinpaul (CIL III 1659, 8075). At Potaissa, an early vicus was established before the arrival of the V Macedonica and at Napoca there may have been a vicus west of the municipium. In 167 the transfer of the VMacedonica to Potaissa ultimately led to the promotion of a civil settlement which had originally been the vicus of an auxiliary fort. The settlement was promoted to a municipium in the late second century (CIL III 903) and under Severus became a colonia (Ulpian Digest L 15.1.8.9; CIL III 1030).

In the late second century a further promotion occurred at Romula (modern Resca), close to the river Olt and the only town in the east of the province. Originating with an auxiliary fort (Vladescu et al. 1974), possibly garrisoned by the *numerus Syrorum sagittariorum*, Romula was first attested in the reign of Pius as a *civitas* (*CIL* III 1180). It became a *municipium* under Aurelius (*CIL* III 753, *IDR* II 351) and was promoted to *colonia* under Severus (*IDR* II 324). Speidel (1973) has associated Romula with the creation of the province of Dacia Malvensis (and colonia Malvensis *CIL* XVI 144), but the late procuratorial inscriptions from Drobeta, together with the now doubtful claim of Denta in the Banat (*IDR* III/1 109), as well as the lack of corroborative evidence from the *colonia* itself for the use of Malvensis in its titulature, suggests the problem is currently irreconcilable.

Romula is the latest promotion that might be linked to provincial reorganisation. Nevertheless, wider imperial policy continued to influence directly the development of provincial towns. North-west of Apulum, Ampelum, south of the Roşii Montana, became a *municipium* in the late second century. It was at the centre of a large gold and silver mining region. Illyrians (*IDR* III/3 383 ff.) from the mountains of Dalmatia (Dusanic 1977, 44) had been brought in to work the mines whilst Asiani and Syrians (Mrozek 1968) were imported as administrators. Promotion to *municipia* occurred at the same time as Aureus Mons, Aurelianum, Celeberorum, and Dardanicum mining centres in Upper Moesia (Mocsy 1974, 133, 223), suggesting imperial policy rather than economic development was responsible. In Dacia slow growth may have been due to the effects of a population dispersed throughout the mountains (*IDR* I map 2) and further inhibited by the extensive use of slave labour.

The development of both Ampelum and Apulum may have been closely related. Bullion from the Roşii Montana was probably transported to Aquileia en route to Rome on a journey which began in the mountains. Apulum was the last great military base before the relatively open country on the route south along the Mureş. It is likely that Partos was the assembly point for consignments and their escorts before they left the province.

On the northern border in the province of Dacia Porolissensis promotion of Porolissum to *municipium* occurred under Severus (*An. Ep.* 1944, 52–54). Structurally the civil settlement remained small with structural evidence strung out along roads leading to the fort. There is little evidence that Porolissum either evolved as a centre of trade or owed its existence to a road across *barbaricum* from Aquincum (Soproni 1980, 213). It was the military which gave the site its importance. With Micia, Tibiscum, and Slaveni it was one of four auxiliary forts large enough to have held two regiments and was probably at the centre of a military district (Cataniciu 1981, 22). Porolissum is unusual in being sited close to the large hillfort of Magara and whilst little is known of the site its proximity suggests both political and tactical motives for the position of the Roman fort. After a century of Roman rule it may have remained sufficiently significant not only for Caracalla to visit the site (Fitz 1966) but also to promote an otherwise small Roman settlement to the rank of *municipium*.

Tibiscum, south of Ulpia Traiana, may have been an even later promotion, becoming a *municipium* by the reign of Gallienus (*IDR* III/1 132). The civil site lies north of the auxiliary fort at the northern end of the Teregova Keys and may be compared to Porolissum insofar as Tibiscum

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was also the centre of a military district. The town comprised two areas of settlement, a double line of buildings, close to the bridge across the River Timis en route to Ulpia Traiana and a much more extensive site on the north bank. Inscriptions indicate the town was closely related to Ulpia Traiana, probably a *pagus* in the *colonia*'s *territorium* in the second century. The smaller settlement may have been the fort *fabricum* (Benea and Petrovsky 1987) but the presence of glass, bronze, and gold workings suggest production on a broader scale than regimental requirents alone.

TRADE AND THE GROWTH OF SMALL TOWNS

Thus far preliminary analysis suggests the origin of the majority of towns in Dacia lay with imperial policy. Reflecting the political conditions of the Roman conquest, all the towns were founded near important military sites but subsequent development suggests other factors gained in importance. The development of the Romano-Dacian landscape and the evidence of Roman material culture found on Dacian settlement sites (Protase 1980) suggests a close relationship was established between city and country. The example of P. Aelius Maximus, a decurion, duumvir guinguennalis and flamen from Napoca, who dedicated an altar and probably owned at a villa at Ciumafaia (jud. Cluj) (CIL III 855, Dolg. II 1911), suggests the urban rich may have owned and inhabited rural villas. In the west at Napoca, Apulum and Ulpia Traiana villas are common (Mitrofan 1973; 1974), but in the hinterland of Romula the identification of only a single villa has led Lepper and Frere (1988) to suggest that the area was dominated by imperial estates, which may have inhibited both urban growth and the development of other villa estates. Little analysis of these sites has taken place. The size of Romula, 120ha, and the paucity of building stone in the area, which may have left timber-framed structures undetectable during the prohibition of aerial survey in Romania before 1989, suggests good potential for further work. In western Dacia the quality of the mosaic pavements is evidence of the level of classical culture aspired to by the owners of the villas, while their location on soils best suited to a mixed farming regime suggests that some of the closer villas could have acted as suppliers to the towns as centres of exchange.

Current theory in Romania lays considerable weight on the unseen economic rôle of the Dacians, yet in the published record there is barely any evidence of spontaneous economic growth. The absence of architectural influence, urban epigraphy, and of native centres suggests the indigenous contribution lay elsewhere. In addition to the fort *vici* few small towns have been recognised in the province apart from the spas at Aquae (modern Calan), Baile Herculane, and Germisara. Nevertheless, settlements that equate to the western concept of a small town do seem to exist. Near Apulum, Micaşaşa occupies over 10ha and has an extensive pottery (Mitrofan 1990); Apahida east of Napoca between the *colonia* and the fort at Gherla is also known for its extensive Roman remains (Tudor 1968b, 230). The growth of small towns indicates the potential in Dacia for identifying the beginnings of a more open market economy and highlights the rôle trade and manufacture may have played in the development of the economy.

Epigraphy attests trading on a wide scale. Aurelius Aquila dec(urio) Patavise(n)sis negotiator ex provincia Dacia (CIL III 2086) is known from Salona, Dalmatia, and several customs points were established as part of the provincial framework. At Drobeta evidence for a statio portoris dates from the early third century, when between 209 and 221 two servus villicus serving under A Heraclitus proc(uratoris) Aug(ustorum) raised an inscription on a Tabularium (IDR II 15); Dierna (modern Orsova) was a statio portoris during the second century (IDR III/1 60) and at Romula a customs post (CIL III 7729) was established close to the eastern frontier (Maxfield 1987). The forts of Micia (IDR III/3 102), Bologa (Resculum) (CIL 924–925), and possibly Boita (Caput Stenarum) (Tudor 1968, 372) also provided the ports of entry to the province. In the towns the archaeological evidence for imported goods is poor.

In the towns the archaeological evidence for imported goods is poor. At Sarmizegetusa lead-glazed pottery (Alicu and Soroceanu 1982), lamps, Samian, and *mortaria* (Paki 1984; Alicu 1974/5) are the only published imported artefacts.

At Drobeta commerce with the south brought lamps from Modena until Aurelius' reign (Tudor 1968a, 91) and others stamped Octavius were imported from northern Italy in a distribution which included Romula and Racari. Two fragments of Greek stamped amphora (*IDR* II 131; Popilian 1976, 41), a type found on the Black Sea, at Sucidava and Romula suggest an eastward trend, while excavations in the fort and the civilian area produced sherds of *terra sigillata* (Popilian 1973), one stamped QS(P) from Adony, Pannonia, dated to Domitian and Nerva (Tudor 1968a, 80), and a second, in the strada Lenin, from the late second/early third centuries from Pfaffenhofen, Raetia (Davidescu 1980, 114).

At Dierna, the position of the town had considerable potential for development as a major port of entry. Located at the bottom of the Teregova Keys, it regulated trade between Moesia Superior and Dacia. Yet the earliest evidence for the status of Dierna is an altar found at Apulum (CIL III 14468) establishing that it was a *municipium* by the reign of Severus. An assertion by Ulpian (*Digest* L 15.1.8–9) that "*in Dacian* Zernensium colonia a divo traiano deducta iurisi italica est" contradicts the Apulum inscription, suggesting Ulpian may be mistaken about the origin of Dierna (Lepper and Frere 1988). Nevertheless, the city may have achieved colonia status and *ius italicum* by the end of the second century. Excavation (*IDR* III/1 fig. 31) suggests only low levels of trade in the second century. At the Lycée Stephan Plavat, two buildings (Bodor and Winkler 1979, 141–142) produced a pottery assemblage which included thirty fragments of *terra sigillata*, the majority from the second half of the second century and third century, from Noricum, Germania, and Westerndorf. From the 1967 excavations Samian pottery – Rheinzabern (Dragondorff 37) and Conbertus III (Popilian 1977) – indicate the continued western trend of imports during the reign of Pius and Aurelius.

At Romula, like Drobeta and Dierna, the second-century ceramics trade was predominantly with the west, with *terra sigillata* from Italy, south, central, and eastern Gaul, Rheinzabern, Westerndorf, Pfaffenhofen, and Pannonia.

In the archaeological model trade is closely linked to manufacture and this is sustained by inscriptions from Apulum, where the *Collegium Fabrum et Dendroforum (CIL III 1217)*, and the *Collegior Fabr Centonar et Nautar Conduc Pascui Salinar (CIL III 1209)* are known.

At Apulum *collegia* are attested on several inscriptions (*CIL* III 975, 984, 1043, 1051, 1082, 1083, 1174, 1207–1209, 1212, 1217) and at Ulpia Traiana twenty-seven inscriptions refer to the *Collegium fabrum* (Ardevan 1978).

At Ulpia Traiana excavation has produced evidence of brick and tile manufacture beyond the walls and quarrying (Alicu, Pop, and Wollman 1979, 1–10) some distance away, though both on a scale sufficient only to support construction within the *colonia*. Pottery kilns are few in number (Dawson 1992), while glass production (Daicoviciu et al. 1983) and sculpture in the temple area of the city (Alicu, Pop, and Catanas 1976) may have served local demand. From Apulum *terra sigillata* (Isac et al. 1979, 228–229) made in urban kilns was distributed to Potaissa, Porolissum, Dierna, and Drobeta during the second century, and from the late second century a medallion appliqué ware, also from Apulum, is known at Drobeta, Dierna, Tibiscum, Micia, Romula, and Lacousteni. *Mortaria* made at Apulum (Baluta 1977) and stamped Theotimus reached Romula, Sucidava, and Nicopolis ad Istrum in Moesia. In contrast to this urban distribution, local sculpture (Protase 1959) was distributed to Porolissum, the fort *vici* at Gherla and Gilau, and a rural site at Cristesti de Mureş, in a pattern suggestive of military patronage (Christescu 1929, 36–39). At Potaissa, pottery was produced (Mitrofan 1969, 517; Catinas 1982, 40–51) in urban kilns and some stone carving (Bujor 1968) is evident from excavation.

At Tibiscum the production of beads similar to those found in Sarmatian graves in south-eastern Hungary led Benea (1983, 115) to suggest they were manufactured for thrade with the Iazyges (cf. Tacitus *Annals* II 62) until the Marcommanic wars, when the trade ceased by decree of Marcus Aurelius (Cassius Dio LXXII 11 3).

At Napoca a centre of provincial sculpture may have developed (Torma 1880; Pop 1968) and there is recent evidence of a large brooch workshop in the north of the city (Cocis 1994).

In the southern cities the evidence of local manufacture is as slight as that in the north. At Dierna small-scale glass production took place during the second and third centuries (Stoicovicii 1978).

At Romula manufacturing seems to have focused on a local villa site north of the town, where production may have begun in the mid-second century with a Samian derivative (Popilian 1976, 225), followed later by a specialist pottery producing wares imitating metal vessels (Petolescu 1981) as well as vessels with serpentine and Mercury reliefs (Popilian and Bordea 1973). A second local industry to develop may have been the manufacture of intaglios (Tudor 1967), of which over 180 have been found with representations of classical deities, animals, and birds. The stones, which include jasper, the agates, and carnelian, are all found in the Carpathian mountains and the Banat and evidence of cutting and polishing has been found at Romula. The pre-eminence of republican themes in the decoration of intaglios led Grommatopol to suggest a second-century date for the beginning of production, which lasted until the midthird century (Gramatopol 1973).

By the end of the second century, therefore, evidence that urban development included both trade and manufacturing also suggests that these factors contributed at different levels. Manufacture in the towns served local and occasionally provincial markets. Trade networks extended much wider but were restricted to luxury imports, while the export of goods focused on raw materials, gold, and silver. The operation of this system may have been far from static and was influenced by both local and regional factors. At Apulum the extensive development of the civil settlement indicates there were significant differences between it and the other towns of Dacia. At Drobeta, on a difficult stretch of the Danube (Cassius Dio 13.4; Marsigli 1726), there was initially access for wheeled traffic from Moesia but its relative status may have changed rapidly when Hadrian removed the bridge's superstructure to prevent its use by the barbarians (Cassius Dio LXVIII 13, 4–5). Later ceramic evidence suggests trade was predominantly riverborne.

A third factor in assessing the commercial basis of the Roman cities is that of immigration. Trade not only created income for an existing population but attracted further settlement. *Prim(us)* Ael(ius) Ion(icus) neg(otiator) (IDR II 47) and L. Samognatius [T]er/tius Trever (IDR II 22) made it explicit that the attraction of second-century Drobeta was trade, and in some cases it is possible to make specific links between immigrant groups such as the coll(egii) Ponto-Bithynor(um) (ATRÉ 1904, XIII 129–130) and economic activity.

Immigration was common to all the Roman towns, with Illyrians, Celts, Germans, Thracians, Syrians, Asiani, Iranians, Egyptians, and North Africans known from inscriptions, in addition to those whose *tria nominia* or Latin nomenclature gives no further clue to their origin. Archaeological evidence, such as burial in brick sarcophagi, suggests settlers from Italy, whilst bustum graves from Romula point to settlers from Pannonia (Babes 1970, 196, 205).

Amongst the immigrants the largest identifiable group are those from Asia Minor (Petolescu 1978; Popa 1983) and Syria (Russu 1969). Many of the eastern settlers originated with one of the twelve eastern regiments in Dacia, although a small group of dedications were made by officials like Aelius Apollinarius, who dedicated an altar in Greek to Zeus Hypsistos (*IDR* III/2 222).

Immigrants particularly from the caravan cities such as Palmyra or the littoral cities of Asia Minor might be expected to have dominated trading communities. At Ulpia Traiana several traders are known and these include two Syrian *negotiatores* (*IDR* 111/2 203) but many other groups engaged in trade, including two *augustalis* (*IDR* III/2 319, 409).

At Porolissum, in the third century the Palmyrene garrison (Cataniciu 1981, 22 n. 181) seems to have attracted civil settlers like Hamasaeus Alapatha (*CIL* XVI 68) and at Apulum there were civilians from Amasia (*CIL* III 971), Aspendos (*CIL* III 14491), Epiphania (*An. Ep.* 1947, 23), Tarium (*CIL* III 1503), Asioi (*CIL* III 7802) and Pergamum, (*Arch. Ert.* 1912, 405; Petolescu 1978).

Crude comparison between the epigraphic evidence of *collegia* and immigration with the archaeological evidence for production and trade suggests a missing factor in the economies of towns. This may be because the rag trade, salt and timber referred to on the Apulum inscriptions and Strabo's description of hides, slaves, and wool as the Balkan tribes' trading stock at Aquileia are difficult to identify in the current archaeological record. Nevertheless, the level of immigration and the level of trade indicates the support needed by the towns and the probable emphasis on raw materials that there may have been in Dacia's trading networks.

STUCTURAL EXPANSION AND THE GROWTH OF IDENTITY

Evidence of structural development in the cities is patchy. Ulpia Traiana, Napoca, possibly Apulum and Tibiscum were planned cities with characteristic gridded layouts. The polymorphic cities at Romula and Drobeta betray their origins as fort *vici* while Porolissum may never have grown beyond ribbon development. There is no published information on Dierna or Ampelum.

At Sarmizegetusa the granaries, the forum, the baths, amphitheatre and water supply, the *aedes* of the imperial cult, and possibly the temple of Aesculapius and Hygeia and Liber Pater were complete by the middle of the second century, by which time the city had begun to spread beyond its rectangular defences. Sarmizegetusa has no firmly dated building inscriptions from the reign of Septimius Severus (cf. Daicoviciu 1966, 156–157 on *IDR* III/2 266, 319) and a house dated to Severus is based on coin evidence for which the context was not recorded (Daicoviciu 1924, 232 n. 22).

At Apulum the water supply had been completed by 158 (CIL III 1061). In the third century the governor recorded (CIL III 1174) a semi-official foundation of the *collegium centonariorum* in 204 and further building is attested (CIL III 14215, 975, 976 (gate), 1212). Further south at Drobeta a *tabularium* was built during the reign of Septimius Severus, Caracalla, and Geta (IDR II 15). At Romula, a Severan or third-century building excavated by Polonic and Tocilescu was only dated to this period as a period of prosperity seemed the most appropriate context for such a building (Tudor 1968c).

Eastern immigration had considerable impact on the cities through the construction of major buildings. At Ulpia Traiana five out of eight temples were dedicated to eastern deities: Aesculapius and Hygeia, Malagbel (*CIL* III 7954), Bel Hammon, and Jupiter Dolichenus, while cults like Jupiter Sol Invictus Deus Genitor (Mithras) continued to be associated with a significant number of eastern veterans (Toth 1978). At Drobeta there are temples to Isis, Jupiter Dolichenus, and Matri D(eum)

M(agnae) (*IDR* II 26, 27). At Apulum there is more of a balance between the traditional imperial deities, with temples to Jupiter Optimus Maximus, Mithras Apollo, and the Capitoline Triad as well as to the eastern cults Aesculapius and Hygeia, Dolichenus, and Iaribolos (*CIL* III 1108).

The immigrant groups may have retained their identities for several generations. In Napoca the *Galatae consistentes* were represented by an inscription dedicated to the well being of Antoninus Pius and Marcus Aurelius, Caesar (*RE* IV 1932, col. 2524–2526), whilst at the *vicus* of Germisara the *collegium Galatarum* indicates the continuing presence of Asian craftsmen or traders (*CIL* III 1394) in the third century. By the middle of the third century the distinction between immigrant groups may have begun to erode. At Napoca the *album collegii* of the cult of Dionysius comprised 42 individuals, with Roman, Greek, Thracian, and Asian names (*CIL* III 870) on an inscription dating to AD 235.

Military influence in the cities was widespread. A close relationship was maintained between some towns and their garrison. At Tibiscum the eastern garrison accounted for the appearance of veteran settlers like Sbarsemia (*ACMIT* 1929, 315) and Goddes (*CIL* III 8000). Apulum attracted veterans from its own garrison and other regiments such as the *coh I Alpinorum* (*CIL* II 1183; *CIL* III 987, 1077). In the early third century votive objects associated with Sabasius at Apulum, Potaissa, and Tibiscum may even indicate Severan settlement of loyal Thracian troops (Macrea 1961) and at Ulpia Traiana family traditions of service in the XIII legion maintained the military connection with Apulum (Piso in *IDR* III/2 243, 245, 337, 366, 440).

Drobeta too was a popular location for both auxiliary and legionary settlement. *P. Ael(io) Diophanto vet(eranus) coh V Gal(lorum) (IDR* II 46) was buried in Drobeta even though his regiment was probably at Pojejana (jud. Caras-Severin) (*IDR* I 3; *IDR* III/1 11, 23) and veterans of the *legio V Macedonica*, buried at Drobeta, may have travelled from Troesmis to settle in Dacia before their legion moved to Potaissa (*IDR* II 40, 47). The tradition continued into the late second century when a veteran from the *legio V Macedonica* and the wife of another settled in Drobeta after the legion had transferred to Potaissa (*IDR* II 39, 67). In Romula there were veterans from the *legio XIII Gemina* and the *numerus Syrorum (IDR* II 330, 350, 352). Veteran settlers often seem to have assumed positions of urban responsibility. The veteran Aelius Valentinus was a priest at the temple to Dolichenus in Apulum (*CIL* III 7760) and similar cases are known from Napoca (*CIL* III 854, 7657).

THE IMPACT OF WAR

From the late 160s historical events beyond the provincial borders had an increasing effect on the towns and a series of late-second and third-century wars, invasions, and revolts are closely interwoven with the evidence of urban growth. Few of the towns were walled. Ulpia Traiana had been enclosed in the second century, initially by a turf rampart and later by ashlar walls (Alicu 1980). At Drobeta and Napoca, the date of walling is unknown, while Porolissum and Potaissa may never have been enclosed. Recent excavation at Apulum suggests walling of the lower settlement at Partos has at least three phases (Diaconescu and Piso 1993). Only at Romula, where walls were erected under Philip the Arab, is the date known with certainty (*IDR* II 325–328).

In the later second century the Marcomannic wars may have been a watershed in the development of the province but specific evidence of structural damage to the towns is rare. There is little evidence from rural areas to gauge of the impact of these wars (Tudor 1957, 31–41), although the pattern of coin hoarding (Mitrea 1954, 483) has been interpreted to suggest incursions along two routes, from Moldavia and the Banat (Mitrea 1936, 275), but this remains contentious (Guest 1993, 27).

Several forts have destruction horizons dated to the Marcommanic wars; both Micia and Tibiscum were destroyed. At the fort of Sinpaul a coin hoard with a *terminus post quem* of 167 was found inserted into the earth rampart (Protase 1969) although there was no other evidence of damage. At Porolissum, the Citera site was destroyed. Sarmizegetusa may have been the worst affected city at this time with destruction to the temple of Liber Pater (*IDR* III/2 11) and a house (EM23) beyond the walls. An inscription (*IDR* III/2 76) records rebuilding in the late second century. At EM23, there may have been a lull between destruction and rebuilding. Napoca also has a destruction horizon but this is undated (Mitrofan 1964, 89).

The settlement of 12,000 free Dacians in the province under Commodus (Cassius Dio LXXII 13) might indicate the extent to which Dacia had suffered depopulation during the wars, although an outbreak of plague may have been responsible (Tudor 1968b, 321; SHA vita Commodi 23.8) despite exaggeration of the disease's impact in the fourth and fifth centuries (Gilliam 1961). Peace lasted until 184 or 185 (Fitz 1962, 856), when honours were gained by the two legions, the V Macedonica pia fidelis (PWRE 12 1925, 1307) and XIII Gemina, possibly for putting down a rebellion when in "Dacia the provincials rejected his rule" (SHA vita Commodi 13.5.6). Dacia represented an important military concentration during the civil war of the early third century. Geta, Caracalla's brother, was successively governor of Lower Moesia and Dacia and several officers from the province were promoted to high rank (Birley 1988, 109 ff.). Historical sources are ambivalent about the real effect of the Severan period (Cassius Dio LXXVII 16 1–4). Herodian describes the destruction of those who came "from the east for supporting Niger, those from the west for their ties with Albinus. All who were prominent at that time in the senate or who were richer and more noble in the provinces were destroyed ruthlessly" (Herodian III 8.5.8).

Severus was concerned with civil settlement, particularly in the Balkans (*IGR* I 766), and Tudor (1964) has proposed a Severan renaissance in Dacia. Several towns were promoted: *municipium Septimium Apulense; municipium Septimium Potaissa; municipium Septimium Porolissensis* (*An. Ep.* 1944, 52–54) and some encouragement is implicit in Cassius Dio's description of Severus, who "restored a very large number of buildings and inscribed on them his own name, just as if he had erected them in the first place from his own private funds. He also spent a great deal uselessly [sic] repairing other buildings and in constructing new ones" (Dio LXXVII 16 1–4). But out of 53 building inscriptions known from the province only nine can be ascribed to the Severan dynasty (Tudor 1964, 297) and Severus' victorious return from the east in 202 may provide the context where city promotion and the adoption of the emperor's *gentilicia* (Birley 1988, 143 n. 28) was a reward for earlier support.

CONCLUSION

This survey of the development of Roman towns in Dacia has sought to examine the evidence which underpins current theory of town development. The result is the identification of regional differences between Dacia and other provinces.

Geography and the aftermath of the conquest played a formidable rôle in the establishment of the road system on which the Roman towns were founded. Away from the Dacian centres the route was at the core of the Roman infrastructure and resulted in the isolation of the Dacian centres from the provincial system.

The development of Roman urbanisation in Dacia originated with the towns providing nodal points within the provincial framework from which the province was administered. In contrast to the western provinces and the Upper Danube, tribal centres were not established and subsequent urban growth may not have been greatly influenced by earlier indigenous trends.

Ulpia Traiana followed an established pattern by providing a military reserve and a platform for Roman civilisation but was located according to military principles and some distance away from the Dacian core. The symbolism implicit in the creation of the first city at Ulpia Traiana was influential and it created a tension between the *colonia* and the military centre at Apulum. This was expressed through the separate residence of the procurator at Ulpia Traiana and the provincial governor, the praetorian legate of the *XIII Gemina*, at Apulum. Later, at the end of the second century the praetorian legate of the three Dacias continued to reside at Apulum whilst the council of the *tres Daciae* meet at Ulpia Traiana.

Despite the functional tension the inhabitants of Ulpia Traiana maintained a close relationship with Apulum, providing officers for the legion and later members of the cities' hierarchy, including shared magistracies.

In the 120s the provincial re-organisation required new centres. These were founded at Napoca and Drobeta, the choice of fort sites reflecting the military framework of the province and the background of trouble with the Iazyges and Roxolani against which the Hadrianic reshaping took place. Later, during the reforms of Aurelius, the military remained influential with Apulum and, possibly, Romula promoted as provincial centres.

In contrast to the earlier periods, the civil war provided a political context for the promotions of the Severan era. In Dacia, Geta's governorship was probably important to the widespread promotions which are probably political rewards similar to those in Pannonia rather than a response to urban growth (Mocsy 1974, 225). Porolissum may be the exception, where the small settlement was promoted either by Severus or to commemorate a visit by Caracalla (Fitz 1966, 205–206) or as a symbol of resolve at the extremity of the province to provide further encouragement to settlers.

In both the second and third centuries the domestic economies of individual cities can be outlined only in the broadest terms. All except Apulum were modest in size. All were located in open landscapes, which today are rich farmland and there is evidence of rural landownership by the urban hierarchy. The income of the cities derived from several sources but food production could have been undertaken from within the cities.

During the early period of development the urban economies were

driven by troops, officials, and veterans whose income was drawn either from outside the province, derived from confiscation, or from imperial service. From the beginning the towns exercised a strong pull, which was especially forceful in the provincial centres where the judicial and financial functions of the governor and procurators required the presence of those subject to their adjudication.

The provincial framework provided the basis for the formal establishment of new Roman trading patterns. Drobeta, Romula, and Dierna were established as customs posts and became major urban centres. All were Roman creations where trade developed with neighbouring provinces; none had Dacian antecedents.

Trade, based on the cities, developed through several networks. Longdistance exploitation of high value goods, locally produced essentials traded in the cities, and specialist items traded between the centres. A long-distance trade in Roman luxury goods, such as lamps, Samian, oil, and wine, developed along the Danube. At the major centres mercantile populations grew from the conquest onwards; some originated as veterans, others were drawn by imperial encouragement or commerce. But neither the scale of trade nor the level of manufacture in the cities suggests that they derived a major proportion of their income from these sources.

The lack of Dacian evidence from the towns suggests the creation of Roman cities and their increasing success may have alienated the indigenous population (Hamer 1990). The phenomena of shared urban offices and extensive immigration indicates the level of support the new provincial towns required. The creation of new Roman trade networks cut across earlier Dacian patterns of trade with Celtic Europe and the southeast, drawing trade towards the west. In the rural areas the reorientation of earlier patterns may have led to the growth of small "towns", with even greater emphasis on regional trading networks based on commodities only recently beginning to appear in archaeological reports.

The structural evidence of urban growth and the varied character of hinterland development indicates the influence of regional factors. On a provincial level the rebuilding at Ulpia Traiana in the 170s contrasts with the older *coloniae*: Claudian Savania, Flavian Siscia, Scupi, and Poetovio on the Lower Danube, which during the reign of Antoninus Pius may have begun to decline (Wilkes 1984, 518). The Dacian cities, too, contrast with those of Lower Moesia where military control of large *territoria* may have limited the size of urban *territoria* (Poulter 1983, 118) and this may be a factor at Romula. The core-periphery effect of inclusion within the Roman empire may have been felt most significantly at Apulum, where epigraphic evidence indicates the use of the river Mureş as a route to the Danube. Although not on the provincial boundary, it acted as a port of entry and as a transhipment point for consignments descending from the mining area of Roşii Montana and Ampelum. Here, inclusion within the Roman empire can be seen to have concentrated development in a specific area.

Ultimately the Roman towns of Dacia may be seen as part of the mechanism of provincial government. Their isolation from the indigenous population, insular self government, reliance on immigration, the military, and their locations remained important factors throughout their development. Town growth certainly occurred but at present it is impossible to say whether they developed urban characteristics which transcended their rôle as provincial centres. The relationship between physical development and titular promotion has not been established. Promotion is ascribed to political and imperial factors while the evidence for the physical form of the cities is largely monumental. At least two were planned, Ulpia Traiana and Napoca, and others may be added: Dierna, Apulum, and Tibiscum. Two more, Drobeta and Porolissum, retained the sprawling characteristics of fort vici. There is little evidence at present for the development of extensive trading networks that were not part of the imperial system and which might have supported urban growth based on commerce, although some trade certainly did occur. Nevertheless, the towns clustered around Apulum on a reduced scale seem superficially to mirror the development of towns on the amber route from Aquileia through Vindobona and Carnuntum, where the route may have been a major causative factor in the growth of Poetovio, Savaria, and Scarbantia.

In the Severan period the functional aspect of the Roman cities was maintained but political promotion emphasised the continuing symbolic rôle of the cities as part of the imperial estate. Promotion was a means of rewarding political support and reinforcing ties with the Severan dynasty. The latest acts of urban support were firmly allied to imperial action. The restitution of Apulum, the promotion of Tibiscum by Gallienus, and the walling of Romula by Philip the Arab all took place in the context of third-century wars, each act was as functional and symbolic in the restoration of Dacia as the promotion of provincial centres had been in the creation of Dacia in the second century.

ABBREVIATIONS

ACMIT – Anuarul Comisiei monimentelor istorice, sectia pentru Transilvania, Cluj, I-IV, 1926–38.

AÉ – Archaeologisch Értesitö, Budapest.

AMN - Acta Musei Napocensis, Cluj, I, 1964.

An. Ep. – Année épigraphique, in Revue Archeologique.

- ATRÉ Alsófehérmegyei Torténelmi, Régészeti és Természettudományi Társulat Evkönyve, I, 1881.
- Dolg. Dolgozatok Travaux de la section numismatique et archéologique de Musée National de Transylvanie, Cluj, 1910–1919.

IDR – Inscriptiile Daciei Romane, Bucharest.

Materiale - Materiale si cercetării archeologie.

PWRE – Pauly-Wissowa-Kroll, Real Encyclopädie der classichen Altertumswissenschaft.

SCIV - Studii si cercetării de istorie veche.

SCN - Studii si cercetării numismatice

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