INTRODUCTION

Today the word archaeology, the study of man's past by means of the material relics left to posterity, is, of course, familiar. But the public still associates the concept of archaeology with that of the so-called classical world, for the public is familiar with the spectacular discoveries of the last century in Greece, Italy, Asia Minor, Egypt, and Mesopotamia. Relatively unknown, however, are more recent discoveries in the various provinces of the Roman Empire, where some of the most important large-scale excavations are currently taking place. The artifacts uncovered bring to light the picture of a fascinating culture, suggesting the ingenuity of the indigenous population. We catch a glimpse of life at the time of the Romans, before and during the early years of Christianity, not at the usual centers, but at the frontiers of Central Europe. When the power of the Roman Empire was on the wane, these provinces became as vital to the Romans as the Italian peninsula itself. The fate of the borders became more crucial than ever before.

Pannonia was one of these border provinces in Central Europe, lying in the Danube Valley, between the Alps and the Carpathian Mountains. Its borders were the Danube River in the north and east, the Alps to the west, and the Sava River in the south. The territory corresponds to present-day Hungary, the so-called trans-Danube area. Northwest Pannonia was the present-day Burgenland of modern Austria, but it stretched into the Vienna Valley as well. South Pannonia covered the area between the Drava and Sava rivers which belongs to modern Yugoslavia. In its time this area was one of the most important provinces of the Roman world, indelibly stamped with a kaleidoscopic variety of characteristics. In establishing its historic borders the Tabula Peutingeriana, the Itinerarium Antonini, the Anonymus of Ravenna, and the Notitia Dignitatum are helpful. When the name Pannonia first appeared in Polybius, its etymology was unclear. The meaning of the term is not completely definite even today. Sometimes it is used as a collective name for the geographical area, sometimes it refers to the Illyrian tribes populating the Sava Valley. Its acceptance as a geographical designation has gone beyond the chronological period dealt with in this book, since the kings of the Magyars proudly entitled themselves, in the Middle Ages, "Rex Pannoniae", hundreds of years after the fall of the Roman Empire in the West.

The work of Hungarian archaeologists within their own country is not entirely separated from those of colleagues who live in Austria, Yugoslavia, Czechoslovakia, and Romania because of international symposiums held frequently on Pannonia and related matters. The borders that concern archaeologists are iden-

tified with those of the Roman Empire, from Britain to the Pillars of Hercules. Africa, and across to Asia.

The idea of acquainting the world with this area as it had been in ancient times was reborn in 1968 when the Serbian Academy of Sciences and the Smithsonian Foreign Currency Program jointly launched the first large-scale expedition in the late Roman capital of Sirmium (under the leadership of Alfonz Lengvel). After a successful campaign. Lengyel left the expedition in 1969. Unfortunately, for a variety of reasons the expedition under new leadership was not a success, and the resulting publications, following in 1971 to 1973, shed little new light (Sirmium I-III, ed. E. Ochsenschlager and V. Popović). But as part of this cooperative effort, it was decided to try to bring forth the results of Pannonian research before the English-speaking public, which had looked upon such efforts before 1960 as entirely dependent on Roman Imperial history, rather than as specialized archaeological research. Although it is true that research in these areas cannot be separated from the history of the Roman Empire and that in a book tied to chronological subdivision and historical principles, the chronology of the empire will be dominant, it is also true that the two researches differ in details. While intensive research relating to the empire goes back hundreds of years, scientific research in the provinces, especially Pannonia, in terms of scientific methods, does not antedate the last one hundred years. But scholarship tied to the empire has passed its zenith, while research related to Pannonia intensified after the Second World War and is now reaching its peak.

Among the various provinces Pannonia played a unique role. It was located at the crossroads of East and West; the area lay in the heart of Europe, embraced by the Carpathian Mountains. It is not surprising, then, that it was a crossroad of invasions and suffered from many wars.

The remains of a rich cultural heritage lies buried under the earth. As early as Paleolithic times cultures started and developed, reaching relatively high levels. The result of enemy attacks and armies raking the territory was the eradication of these cultures, but generally survived some trace of their existence. On the ruins of the old, new life started. Levels of civilizations, sometimes poor, sometimes wealthy and well-developed, piled one above the other, provide us with an accurate record. To an archaeologist the rediscovery of the strata of bygone civilizations in Pannonia seems like the turning of the pages of a book.

Interest in the Pannonian past goes back centuries. But this interest had to do with the legends and associations attached to particular sites. Simon Kézai in his Gesta Hungarorum, dating from the Middle Ages, reports that one of the Béla kings of the Magyars erected his royal palace in the twelfth century on the spot where the ruins of the city of Attila, king of the Huns, were still visible near Sycambria.

King Matthias Corvinus of Hungary, whose houses at Buda were built "ad italicorum aedificiorum symmetriam" by Italian masons and decorated by Italian sculptors, was the only Renaissance ruler outside of Italy in the fifteenth century. He is known to have funded an archaeological collection in addition to establishing the well-known Corvinian Library. The historian Bonfini refers to this collection in his work, and part of the collection is thought to have been discovered during

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the recent excavations at Buda (L. Gerevich, Excavations at the Burg of Buda [Budapest, 1966] in Hungarian) and Szombathely-Savaria (E. B. Thomas, II primo Museo Ungharese [Budapest, 1966] in Italian). J. Marsigli, the noted Italian military architect, in the seventeenth century made several sketches and sketch maps of ruins along the Danube River, noting the still visible ruins of the great Roman defense line, the limes. The English travelers J. Milles and R. Pococke traveled to Hungary in the eighteenth century to study the antiquities there and made illustrated diaries of their journey. Recent excavations have authenticated the accuracy of their observations. The travel fever of the Baroque period and the ambition for discovery continued during the reign of Queen Maria Theresia and Joseph II. The extensive surveys and road construction projects of this period resulted in further archaeological discoveries.

Count Ferenc Széchényi established the Hungarian National Museum in 1802, the year Lord Elgin sent his two hundred chests of marbles from Athens to England, where they became the heart of the collection of the British Museum. It was also at this time that Ennio Quirino Visconti was about to open his "l'antiquarium" in the summer home of Anne of Austria and the illustrious Louvre was still called the "Musée Napoléon". Thus the Hungarian National Museum became

one of the earliest European national archaeological collections.

During the last century some of the first Hungarian archaeological publications appeared in Latin and Hungarian. F. Rómer was the first Hungarian archaeologist systematically to plan excavations in Hungary. He directed excavations and published reports on the excavated material. After him, two internationally known archaeologists, F. Pulszky and J. Hampel, started to systematize all findings, while one of the most basic systematic researches is identified with the name of B. Kuzsinszky, who founded the Museum of Aquincum. As was customary at that time, Hampel divided archaeology into two parts: prehistory and the medieval history of Hungary. The proceedings of the Eighth International Congress of Pre-History and Anthropology held in 1876 were published in French (in the international tradition of Hungarian archaeology, a tradition that has never changed). Since 1859 the Archaeological Notes (Archaeologiai Közlemények), and since 1868 the Archaeologiai Értesítő, have been published in several languages. When A. Alföldi, who later was professor at the Institute of Advanced Study at Princeton, established the two series of monographs called Dissertationes Pannonicae, they were directed to the international public.

During the second half of the nineteenth century, in the wake of the great revival of antiquarian interests, archaeological societies were established on local levels which gave impetus to the founding of city museums and private collections. Around the end of the century the publication of archaeological monographs, mostly of regional importance, relating to counties and cities, began. These were written by specialists, though systematic excavation in the modern sense did not exist in the area of greater Hungary. Research was directed toward art-historical and aesthetic evaluations of single objects, rather than placement in an archaeological framework, even though several excellent researchers, well versed in archaeology, were among the historians doing this work. Still, at the threshold of the twentieth century, there were exceptions in the field of Pannonian research, a field that managed to advance slowly because of the few critical and balanced works from this period. Among these were K. Torma, B. Posta, and M. Wosinsky. This generation, however, was followed by B. Kuzsinszky, L. Márton, F. Tompa, L. Nagy, J. Banner, and A. Alföldi. Most of the contributors to this volume are the beneficiaries of this older generation of Hungarian archaeologists.

After World War II the number of archaeological periodicals multiplied; there appeared the Acta Antiqua Academiae Scientiarum Hungaricae, the Acta Archaeologica Academiae Scientiarum Hungaricae and Budapest Régiségei (the Antiquities of Budapest) and the Folia Archaeologica, to cite some of the best-known examples. Others are the Alba Regia, Gorsium, Antik Tanuhmányok, and Cumania. In addition to these a dozen or so other journals of regional importance have appeared, such as the Fejér Megye Története (History of the County Fejér), Arrabona, Antiquitas Hungarica, and, of course, the outstanding museum publications such as the Bulletin du Musée Hongrois des Beaux-Arts. The postwar era established periodicals with great flexibility, capable of publishing new achievements and preliminary excavation results without long delays. A great many monographs have provided international forums for archaeologists.

The postwar era also brought new laws for the protection of ancient monuments, as many nations began to pay more attention to their cultural heritage. Museums and other institutions in Hungary started to build systematic registers to document and protect the Hungarian national heritage. After the war-torn museums and galleries were rebuilt, more excavations were undertaken.

On the several monographs published on Roman cities and settlements, and Pannonia in general, the first after the war was on Intercisa, in two volumes (1954, 1957). After 1956 Edit B. Thomas edited the Archaeologische Funde in Ungarn. and István Bóna edited Hungarian Art till the Arrival of the Magyars (in Hungarian). The early compilations of archaeological finds from prehistory to the medieval period were systematically published in these books. In 1962 the first volume of the Archäologische Bibliographie des Mittel-Donaubeckens was published by J. Banner and I. Jakabffy. It was a complete bibliographical work, organized according to subject matter, and included a complete international bibliography on Pannonia. The book appeared again in 1968 with a cumulative bibliography and will be republished periodically. In 1962 A. Mócsy published his monograph in the Pauly-Wissowa Real Encyclopedia, the first comprehensive work on Pannonia, written by an archaeologist who comes from that area. Articles of lesser value were published previously in the Encyclopedia dell' Arte Antica and Fasti Archaeologici, which suffered from a lack of expert knowledge. Among the newest of the comprehensive works is Mócsy's Pannonia and Upper Moesia (London, 1974), one of the series of The Provinces of the Roman Empire, which, with his "Die Bevölkerung von Pannonien bis zu den Markomannen-kriegen" (JRS 52 [1962]), constitute a substantial contribution.

The first textbook was published in 1963, written by L. Barkóczi, I. Bóna, and A. Mócsy, and edited by J. Harmatta. It introduced students of archaeology to prehistoric Roman Pannonia, and to the decline and fall of the Roman world in the province; it included a selected bibliography. It was soon followed by another text written by Mócsy in 1972, in Hungarian, which presented a well-bal-

anced historical analysis, using ancient sources to describe the whole ancient pre-Roman Pannonian panorama. Mocsy dealt here, in depth, with controversial issues, by going to Greek sources for the interpretations of names. But many of the explanations remain hypothetical, without enlisting supporting archaeological evidence.

Meanwhile, Hungarian archaeology introduced new methods to fit situations not encountered before, with previously unavailable manpower. With special pride in the past and in their national treasures, the Hungarian government promoted excavations, frequently with the help of the army, and using new technology in archaeology. This new methodology was already published in 1954 in an excellent archaeological technical manual under the joint authorship of J. Banner, Gy. László, I. Méri, and A. Radnóti. These innovative techniques produced some revolutionary logistics, among them A. Salamon's punch-card system for the evaluation and organization of Avaric and fifth-century material. This was an inexpensive, computerized method, useful at any site, that eliminated expensive computer evaluation and delay that risks the loss or damage of material. ("The Fifth Century and Avaric Material Evaluated with the Punch-card System", in Hungarian Archért 93 [1966]: 284-90).

Among historians and archaeologists from outside Hungary who dealt with comprehensive works on Pannonia, P. Oliva stands out. His Pannonia and the Onset of the Crisis in the Roman Empire, published in English in 1962, was researched in a remarkably short period of time. In it, however, nineteenth- and twentieth-century sources are treated in a somewhat opinionated manner; missing is the well-balanced critical perspective found in Oliva's other historical works. In his foreword he projected some ideas on the Roman outposts in Slovakia and Moravia, but unfortunately failed to elaborate on these. Recently it was suggested that some buildings there were residences of Roman clients.

For students of the history of pre-Roman Pannonia it would seem that due to a lack of any cohesive force the area was subject to frequent power changes, with the population periodically absorbed by brutal, if temporary, superpowers. With the expansion of Roman power in the area, life in Pannonia stabilized and an economic upsurge resulted. The Romans, realizing the strategic importance of this border province, organized it as a military defense area, a type of buffer state. But as Roman brilliance in politics dimmed—the result of internal decay—political mistakes were committed. Instead of expanding their territory into the Carpathian Mountains, using these natural borders as a line of defense with the Danube area as a second line, the Romans gave up Dacia. It was an expensive mistake which was paid for later, during the period of military crises.

In order to present a complete picture to the reader, the authors of this volume have introduced a summary prehistory of Pannonia during the Neolithic, Mezolithic, and Copper ages. There a descriptive rather than analytic approach was taken, since this period is not directly related to the Roman period. The reader should observe that an east-west migration pattern was characteristic of the Paleolithic period of this area. This partially changed into a south-north migration, as in the "Linear Pottery culture", the well-known "Lengyel culture", of Neolithic or Eneolithic times. The Lengyel culture eventually moved into the

Copper Age and was replaced by the "Pécel" culture, which moved from the Balkans, south to north. During the Middle Bronze Age another migration pattern developed with the arrival of the "Tumulus" culture, which moved in from the west and northwest, through the Transdanubian area, toward the Balkan south. Much of the reconstruction of the four centuries before the Roman period in the area later to be called Pannonia is still based on ancient historical sources alone. The archaeological evidence to corroborate this data is still meager. For the time being, until scientific archaeological undertakings deliver more evidence, theories creating relatively simple images must satisfy, and historical events of the immediate pre-Roman period must be understood against the political background of Rome itself and the sources the Romans themselves provided.

Hellenistic scholarship gives us a knowledge of ancient pre-Roman Pannonia which is episodic and wrapped in a hazy mythology. The tribes mentioned by Herodotus and Hecataeus in the middle-Danube area and on the Great Hungarian Plain play no part in the later pre-Celtic history of Pannonia. Many things remain obscure despite the enormously advanced archaeological research in Hungary, There is, for instance, no possibility at the present time of being able to place the once troublesome tribe of the Triballi into their historical-geographical place, for the geographical names referred to by ancient historians are not always determinable. Mocsy, with the aid of linguistic research, divided the tribes of southeast Europe into three main language areas: Thracians, Illyrians, and Celts. He stated, however, that the tribal divisions of the Thracians and Illyrians are no real proof of their division into language families. But the confusion concerning the language and the dialects spoken by the Illyrians and Thracians is slowly clearing up. No longer is it believed, for instance, that the people of northern Dalmatia spoke the Illyrian language. Careful analysis, based on mapping placenames, produced the theory that the Thracians belonged to two distinct linguistic groups. There is, however, evidence of the distribution of Celtic name forms in Pannonia. The concentration of these name forms is around Aquincum, from Sopianae diagonally to the bend of the Danube, following the Amber Route from Poetovio to Savaria and Carnuntum. In southern and southeastern Pannonia, Illyrian names are prevalent.

Nevertheless, some tribes of the pre-Roman middle-Danube area remain the subject of controversy. Let's take, for example, the Dardanians, whose trouble-some existence in the Ancient World is matched by the troubles they have created in modern research. We find them in the service of the Roman army as "alae" and "cohortes Dardanorum", and thus the information concerning their provenance should be adequate. Yet they are still believed by some historians to be Illyrians, while others strongly maintain that they were of Thracian descent. Such confusions, which stem from the frequent difficulty of recognizing ethnic and linguistic characteristics, may be expected to endure until further research and excavation reveal more substantial evidence.

Another puzzling problem still awaiting solution is that no Celtic influence can be detected among the descendants of the Scordisci in southeast Pannonia, even though these people lived under a lengthy Celtic domination, or were Celts themselves. The answer to this question probably lies in the thorough mixing of influences of the Illyrians and the Thracians, in addition to that of the Celts, creating a mélange where the once dominant linguistic characteristics have disappeared and ethnic and social change ensued. It will take many more years of excavations to uncover epigraphic and other evidence before specific demarcation lines and power relationships among the Illyrians, Thracians, and Celts in these areas can be determined.

The second century B.C. affords more than guesswork in many areas of Roman Pannonia, but the years between the Celtic expansion of the fourth century up to the second century are still in need of clarification. It was in the fourth century that the Celts reached the middle-Danube areas, inhabited originally by the Illyrians (about the same time that the Celtic invasion reached Italia).

The fluid state of the divisions between the Dardanians and the Celtic Scordisci was probably due to anarchy in tribal organization. We do know of their political alliances with Macedonia and Rome at the time of their rise in importance. During the third century the picture is very nebulous. One may suppose that the Scordisci established hegemony after eradicating the pre-Celtic civilizations at the confluence of the Sava and the Danube rivers. This period of Scordisci control, as shown by Mócsy, was to be known later as Civitas Scordiscorum and lasted as late as the first century A.D. The correct extent of their expansion and the whole power structure is yet to be determined. Also there is the problem of establishing political structures for the pre-Roman period. It remains to be seen whether the warrior classes were always the initiators of political and geographic change, or whether some of these changes were the results of peaceful integration.

As for physical and ethnic borders among the various pre-Roman Celtic tribes, no conclusive evidence has emerged so far, beyond indications that the Taurisci were dominant in southwestern Pannonia and the Boii in northwestern Pannonia. The migration of the Celts as described by Caesar, remains a question in the pages of history, just as their physical geography, as described by Strabo (VII 2,2), also has led to confusion. Similarly the question of the settlement of the Taurisci in Pannonia still heavily taxes scholarship. Most scholars agree that the dominant power structure was divided among the Celtic Boii, the Taurisci, and the Scordisci, but the borderline between the Dacians and the Anartii, i.e., the separating line between the Celts and the Dacians, has not yet been determined. According to Poseidonius and Strabo, the Celtic wave which appeared at the end of the second century B.C. was able to establish eventual political continuity in the Boii territory of the northern and southern sectors of the future Pannonia. The Boii capital has never been definitely located, though it is suspected to have been somewhere in the area of Bratislava (Pozsony).

It is interesting that the geographic distribution of Celtic names largely corresponds to the wagon burials on tombstones and tumuli burials. Since this type of burial is not characteristic of the Illyrian tribes, this particular phenomenon may help in further determination of the divisions just discussed. Other evidence comes from studies by É. B. Bónis (Die spätkeltische Siedhung Gellérthegy-Tabán [Budapest]), including her contribution to this volume (ArchHung 47 [Budapest, 1969]). She clarifies certain relationships through ceramic evidence. Her research, culminating in this volume, spans four decades (DissPann II, 20 [Budapest, 1942]).

Ultimately, it appears that the natural borders at the Drava and Sava rivers. an area which served as a bridgehead to and from the Italian peninsula and Dalmatia many times during history, was a first line of defense and a catalyst between East and West, but was never recognized as an important boundary by either the Illyriciani or the Celtic tribes. These tribes never became a political entity of any significance, in contrast to the Romans, who recognized early the area's geopolitical significance, and with their uncanny sense of strategy laid siege to Siscia as early as 156 and 119 B.C. in order to secure that land between the Drava and Sava rivers (G. Alföldy, ArchÉrt 89 [1962] pp. 146 ff.). Future research will have to treat the Pannonians in greater depth, although here the veil of time remains obscure. The relatively scanty information available on the Pannonians can be attributed to their primitive tribal organization, which did not develop into a centralized power. Some semblance of such centralization emerges only after the grip of neighboring powers was weakened in 88 B.C. when the Scordisci were defeated. This retarded development may be attributed to the thorough absorption of Celtic influences, making it difficult to isolate those characteristics that were typical of the Pannonians in pre-Celtic times. The only useful description of the geographical distribution comes from Appian (I, 11, 14),

One must agree with Mócsy, who feels that while the Late Iron Age of Pannoma requires further investigation, evidence for the time being must be derived from those characteristics of the La Tène culture, which, he says, "could be attributed to variations in the degree of Celtization" (Pannonia and Upper Moesia, p. 26). Interest in this area of archaeological research has increased among European scholars since the early 1950s. Gordon Childe has felt that the Central Danube area was of capital importance in the deciphering of European prehistory. As for future research in this area, archaeological discoveries must be regarded as the most important future source of information to broaden our perspective regarding such areas as ethnic characteristics and language.

It is characteristic of the changing Roman military strategy that certain provinces were occupied with a speed comparable only to a modern Blitzkrieg, while the annexation of other provinces was accomplished in several stages. The latter method was used in Pannonia. Some historians believe that when the Romans founded Aquileia in 121 B.C. they already had a plan in mind for advancing into the Danube region, and that this city, with its extensive ports, was to serve as a hinterland and supply bridgehead. By the end of the century Aquileia had developed into a great political, economic, and military center, located as it was at the head of the Amber Route, which led to the north.

During the step-by-step military conquest of Pannonia, Romanization was aided by a resettlement of the population. By regrouping ethnic units the Romans achieved a threefold goal: they accelerated the process of Romanization; they decreased the potential for uprising; and they helped create conditions for an economic upswing. In this volume we have emphasized this penetration policy of the Romans as an integral element of their foreign policy, and this became an important factor affecting the life of Pannonia. The conquerors soon realized, however, that they could not leave the defense of the province up to the "client states", and the idea of the Danubian defense line, the so-called *limes*, was devel-

oped in Pannonia. One of the leitmotivs developed in this book is that the archaeological evidence leads to the conclusion that the *limes* served first as a fortified base for raids into Barbaricum, rather than as a defensive establishment. In this early formative stage the *limes* was built in one line through the use of palisades and wooden material in general. Gradually there was a changeover to brick and stone in the second century, while in the third century the *limes* was solidified and transformed in depth into a Maginot Line. Recently S. Soproni summarized the historical and topographical importance of one of its most significant parts in Pannonia (Der Spätrömische Limes zwischen Esztergom und Szentendre. Das Verteidigungssystem der Provinz Valeria im 4. Jh. Budapest 1978).

Behind the limes the cities developed from oppida into municipia, urbanization being the normal process of Romanization. It is significant that they took the form of municipia rather than civitates. Eventually the new Roman cities received the rank of colonia. In Pannonia the colony had a higher rank than in Italia. The non-Italian settlers formed the municipia and after they obtained the language and cultural levels of Roman cities they rose to the rank of coloniae. (In Italia the colonia had a lower rank than municipia because the latter were formed by the original Italian inhabitants.)

Certain territories were attached to each city, and coloniae and municipia extended their administration to the adjacent territories. The most important urbanization processes took place under the Flavians, Hadrian, and the Severan emperors.

Much of the economy was geared to the needs of the military. Here the reader is introduced to the legionary fortresses, canabae, and the vici systems. Some settlements were established in proximity to military camps. Army veterans who inhabited these settlements became wealthy from their land while forming an integral part of military security. Their sons formed the next generation of military personnel, coming from a home environment that nurtured an army-oriented ideology and providing army recruits with a ready source of raw material. The examination of military diplomas shows that at first the military leadership was exclusively Roman, as might well be expected. Until the beginning of the second century only Italian settlers were trusted and drafted into military service. But from the second century on, native Pannonians served in the local legions and after twenty-five years of service received Roman citizenship.

After the Dacian wars, Trajan divided Pannonia into two sectors. By the time of the Tetrarchy it was divided again, this time into four provinces. Of these, Pannonia Secunda ranked highest politically because of its capital, Sirmium, which became one of four late capitals of the empire. Archaeological documentation demonstrates that the foundations of the cities in southern Pannonia are earlier in general than those in the north, where the territory was annexed more gradually. The city administration was in the hands of civilian personnel, but territorial administration was in the hands of the military, at least in the beginning. The Roman central government demonstrated great sensitivity in deciding what functions were important to safeguard the interests of the empire, and which might safely be relegated to local governments. Eventually the military administration extended its role over civil administrations as political conditions changed.

The nuances of such administrative changes throughout Roman times are dealt with in that chapter of the volume.

The villa Romana is an important episode in the history of settlement and the development of agricultural wealth in Pannonia. While this book gives the subject adequate coverage the reader who wants more detail is referred to E. B. Thomas's Römische Villen in Pannonien. These villas may be divided into five groups: those near Lake Balaton, those near Lake Fertő, those between the Drava and Sava rivers, those situated along the limes, and those scattered in the interior of Pannonia. As in other parts of the Roman Empire, the purpose of the villa system was primarily economic, but these villas later became of strategic importance. Though the system was organically related to the slave economy, it appears that the landlords did not cultivate their lands with slaves at the beginning. The impoverished original settlers were used as agricultural laborers and it seems that certain groups of small landholders created a cooperative type of villa. The survival of this type of economic institution has great importance. Recently we found evidence of similar systems in Italy, with a lifespan extending into the seventh or even the eighth century A.D. (A. Lengvel, G. Radan et al., "The Excavations at Castelliere di S. Fedelc". Bulletin of Mediterranean Archaeology 1 [1975]: 9 ff.).

Pannonia never adapted itself completely to the Roman way of life. Its culture kept resembling that of a frontier settlement, a transitory kind of culture. Since they lived in a frontier province, one that was selected to perform primarily a military function, the inhabitants sought fulfillment in their military roles. This fits well with the survival of the native warlike character of the Pannonians, a spirit not conducive to art and literature. Illiteracy must have been extensive and pottery marks in the form of imitative letters, instead of signatures, may be indicative of that state of affairs. Documents bear further evidence of ill-understood Latin. Much of the epigraphy comes from foreign groups such as the Syrians, Jews, and latinized Greeks. Historians who wrote about the eastern military campaigns of the Pannonian legions were critical of the cultural levels of these troops. Aurelius Victor, in his book on the emperors, pointed out that those emperors who descended from Pannonia lacked humanity. But the word humanity may, in this case, have had a somewhat different connotation.

Many mythological scenes on stone monuments point to the fact that mythology was taught in schools, but in essence Pannonian literature consisted of verses for graves. The Pannonians regarded Sylvanus, an Italian import, as their cluef deity, and he is depicted in different forms. The Capitoline Triad appeared occasionally, but never reached the degree of popularity it attained in Italia. The Danubian rider-god combined characteristics of Mithras Epone and Dioscuri and was popular among the Danubian military. When the Greek gods reached Pannonia they became Pannonized. The Syrian influence, mostly imported by soldiers, brought exotic gods. In Savaria and Poetovio, Isis sanctuaries were discovered along with the Serapis cult and the cult of Amon–Jupiter. But this versatile pantheon was, in essence, transitory. In the third and fourth centuries Mithraeums were built and Mithraism was the dominant Oriental cult. Christianity appeared in the middle of the third century and during the persecutions

Diocletian, several hishops were martyred. Irenaeus of Sirmium, Quirinus of Siscia, and Victorinus of Poetovio became victims of Diocletian's terror.

Burial, as might be expected, was strongly tied to religion. From the period of the early Roman penetration, the Pannonians buried their dead outside of settlement boundaries. From the second century on, family burials with monuments appeared inside the city limit. A wagon was often represented on tombstone monuments, a characteristic of Celtic burial customs. These tombstones are rich sources of information about Pannonian customs. Much can be learned about ethnic background, movements of military and ethnic groups, costume, jewelry, and religion. The reader is referred to the works of G. Erdélvi, who, before her untimely death, studied the ethnic characteristics of these monuments, and to the new series by L. Barkóczi, RIU (referred to earlier), which deals with several counties in northwest Hungarian Pannonia. Jews in Pannonia are dealt with by G. T. B. Radan ("Comments on the History of the Jews in Pannonia", Acta Arch. 25 [1963]) and Edit B. Thomas ("Eins ist der Gott!" Über jüdische Denkmäler der Römerzeit in Pannonien. Magazin für europäische Zusammenarbeit [Eisenstadtl, V. Jahrgang, No. 3-4, 1977, pp. 21-25, Figs. 1-10) and are mentioned in Alice Burger's description of a late Roman cemetery.

Artistic influences were largely limited to the imports brought from Italia by the Imperial troops during the first century of the Christian era. Latest results were published in F. Fülep: Roman Cemeteries on the Territory of Pécs (Sopianae), Budapest, 1977; Edit B. Thomas: Savaria Christiana, Szombathely, 1977, pp. 1-60, Figs. 1-50; Edit B. Thomas: Pannonische Reliquienaltäre (Vorbericht), Arheološki Vestnik 29, pp. 573-88, Figs. 1-20.

The chapter on ceramics deals with a pivotal point in Roman archaeology. By the second century of Roman rule imported wares were replaced, and local shops were able to supply the entire needs of the province, except for ornamental vessels. Here the previously mentioned studies by É. B. Bónis and E. B. Thomas are recommended. Terra sigillata, and its various moves across the continent, has been the subject of much research in the last two decades. Its appearance in Pannonia is an important part of the history of this ceramic. In addition to the famous work of H. Comfort, De la Céramique Sigillée, the reader is referred to the work of D. Gabler. Another extremely important work in this field is "Angaben zur Verbreitung der Sigillaten in Pannonia", ArchÉrt (1964), pp. 94-110. A recent work on the small, so-cailed lighthouses is G. Radan in the Alba Regia 4 (1972) and Gorsium I (1974).

Continued research on Pannonian glassware received impetus from the recent work of L. Barkóczi. The finer pieces came from the Rhineland and, of course, from Syria. However, domestic workshops were established and produced some forms little known in Western or Oriental centers. Here the reader is again referred to the earlier work of Fremersdorf and the newer works of Barkóczi.

For details on arms the reader is referred to Edit B. Thomas in H. Klumbach: Spätrömische Gardehelme, Munich, 1973, pp. 39-51, 103-111, Pls. 12-18, 45-57 and Helme, Schilde, Dolche, Studien über römisch-pannonische Waffenfunde, Amsterdam, 1971.

Coinage did not change during the first century of Roman occupation. The

indigenous inhabitants continued using their own currency. Later, as more Roman coins came into circulation, mints were set up in Viminacium and later in Carnuntum. Constantine the Great founded the mint in Sirmium. After Valentinian the money supply ceased and the inhabitants had to make do with the available currency. Finally, north of the Drava, the circulation of coins ceased entirely after A.D. 375. This factor, according to some Hungarian researchers, is related to the loss of this part of the province. For varying opinions on this the reader should consult, in addition to the other sources, the new Bibliography of Hungarian Numismatics (1977) by M. F. Fejer and L. Huszar. For further research in numismatics see the following works: W. Hahn: Carnuntum, in Die Fundmünzen der römischen Zeit in Österreich, III. Vol. 1, Vienna, 1976; Katalin B. Sey: Coins from Identified Sites of Brigetio and the Question of Local Currency, Régészeti Füzetek, Ser. II, no. 18, Budapest 1977. Especially important is J. Fitz's Der Geldunlauf der römischen Provinzen in Donaugebiet Mitte des 3. Jahrhunderts, Vols 1–2, Budapest, Bonn, 1978.

By the beginning of the sixth century the province of Valeria was lost to the Huns as "foederati". A. Alföldi partially explained this event in his classic Untergang der Römerherrschaft in Pannonien (Berlin, 1924-1926). These theories were not seriously challenged until the 1960s. Mócsy analyzed these events and corrected some earlier errors in the PWRE supplement. But the issue of the change of guard in this area remains controversial especially in view of L. Várady's Das letzte Jahrhundert Pannoniens (1969), pp. 376-476; and T. Nagy's "The Last Century of Pannonia in the Judgement of a New Monograph", ActaArchHung 19 (1971): 299-345. To some of the new theorists it now appears that the Huns controlled, but did not populate, the province. According to these theories the Romanized population gradually left Valeria beginning in A.D. 380 and the Huns were active only in the non-Romanized Alansland.

The real Hun advancement must have occurred after the Ravenna treaty in A.D. 433, when the Romans ceded Pannonia Prima. Although the archaeological evidence is insufficient to reconstruct a picture of the social and cultural situation, it now appears that the traditional theory of "Untergang" is being challenged and that the takeover was not as sudden as once believed. Some survivals surely existed until the great migratory period. Recent works by L. Barkóczi and Á. Salamon are expected to shed some more light on this subject.

The reader will find an insightful and entirely unknown dimension when reading about I. Lengyel's paleoserological research and his results. Lengyel is a practicing physician and a professor at the University of Budapest. His novel method of blood-typing with fluorescent antibodies is little known in the Western world. This method, invented by Lengyel, provides a new approach to the determination of the ethnogenetic and biological developments of the past. It has been used with considerable success in thousands of cases on skeletal remains from the Copper Age to the Middle Ages. Recently the editors of this book used the method to determine genetic relationships in examining the findings of their excavation of monastic cemeteries in Italy.

Conventional methods of anthropology, normally based on morphological examinations, preclude the use of intact or almost intact skeletal remains and

cannot determine changes in biological procedures at certain ages, as before puberty or during the aging process. Thus, since we are lacking the method of determining the age of certain groups, it is not suitable in many cases to determine demographic changes. Lengyel's complex serological bone-tissue examinations have overcome these deficiencies. No longer enlisting morphological methods, but rather, using the determination of blood groups, it sheds light on certain diseases based on hormonal changes, vitamin deficiencies, infections, and other factors.

Hungarian achievements in anthropology in the postwar years are reflected in the work of J. Nemeskéri. His "Fifteen Years of the Anthropological Department of the Hungarian National Museum" (Yearbook of the Nat. Hist. Mus. [1961], pp. 615–30) summarizes much material. The work of P. Lipták, especially his experience and study in the Soviet Union and his collective works on Hungarian anthropology, are commendable. Many other related works by Gy. Regöly Mérei, A. Kralovánszky, and K. Éry in such periodicals as the Anthropological Notices (Anthropologiai Közlemények), Acta Biologica Univ. Szegediensis, and others are also to be recommended.

After finishing this book the reader should have a broad view of the new dimensions in Pannonian research since the Second World War, including the many well-documented and modern excavations such as that at Gorsium (Tác), which is presently the largest in Central Europe. However, imbalances and lacunae still exist in the process of establishing one of the finest archaeological schools on the Continent. A long-awaited synthesis has been written by Mócsy in the PWRE supplement and has been kept up to date (Eirene 4 [1965]: 133-55; ActaArch 21 [1969]: 340-75, 26 [1973]: 375-403). However, the approach still remains more historical and analytical, rather than entirely based on archaeological evidence. Although some monographs have appeared, the comprehensive analysis of the arts of Pannonia remains to be written. The same is true for the comprehensive study of Early Christianity in Pannonia. The director of the National Museum, F. Fülep, produced some spectacular results at Pécs in the area of the cathedral. In large-scale excavations it appeared that the area was a paleo-Christian cemetery, but the historical presentation in the context of paleo-Christian research and a corpus of Early Christian finds is still to be written.

The strategic situation of the Danube River offered a perfect solution to the problem of consolidating the Roman Empire in its formative years and of establishing frontiers which would assure lasting peace and safety in the southeastern flank of Europe. The Danube was not only a line of demarcation between Romans and Barbarians but also an integral part of a vast shipping network in Roman Europe. It connected the east with the west, the sea with the continent. A Roman river from its source to its delta, the Danube became a dynamic commercial artery, providing cheap and efficient routes for bulk cargoes. Several brief works have dealt with the historical and commercial implications and military importance of the river. The great, but speculative, works produced before modern excavations belong to the last century and were not firmly based on concrete factual information. These elaborate pieces of scholarship belong to J. Szentkláray, Zs. Fekete (later a legislator and a well-trained dilettante, whose works commanded special

attention and were republished in Buenos Aires in 1976), and several engineers such as G. Téglás, Gy. Neudeck. None of these men were historians or archaeologists. These works detected the great accuracy of observations of L. Marsigli made some two centuries earlier. They also copied Imperial inscriptions at Orsova/Dierna at the Iron Gate where excavation is currently under way and traced the steps of the magnificent Imperial expeditions and the steps of the legio VII Claudia, Cohors II Hispanorum, and the invasion of Dacia.

In spite of the above, as in other provinces, many questions have not been dealt with. It is suspected, but not really known, that in the rapid consolidation of river transport between the eastern province and the empire, river ports and ferry posts of the defeated natives were incorporated into the newly unified network. Of the twenty-five cities of Pannonia in the third century, of which more than twenty can be correctly located, twelve had ports and landing facilities. Most of these landing facilities have not been located at all. Famous bridges, one of which was located by the editors of this book in the late 1960s at Sirmium, have rarely been surveyed and none have been excavated.

Although underwater archaeology has some limitations in murky river waters, such excavations have now been carried out at several places. Some efforts to consolidate the present situation as a base for further study were begun by E. B. Thomas, who plans to publish a volume dealing with the objects found in the Danube from Esztergom, Százbalombatta, Intercisa, and other spots. Mócsy pointed out the importance of this matter in his article in the PWRE and raised the question of the many installations which were needed for the accommodation of the classic Histrica, which also serviced Moesia Prima and Dacia Ripensis. He also identified some unique river-landing fortifications. The further study and excavation of these installations may shed light not only on ferry crossings, bridgeheads, and river-landings in Pannonia but also on other river ports in Europe during Roman times. The reader is referred to "Ein spätantiker Festungstyp am linken Donau Ufer", Roman Frontier Studies (1969, 1974), pp. 191-96; "Die spātrömische Schiffslande in contra Florentiam", Folia Archaeologica 10 (1958); "Il problema della condizioni del suolo attribuito alle unità militaria nelle province danubiana", Accademia Nazionale dei Lincei (1974). Nevertheless. largescale research in this area, which includes commerce as well, is not yet planned.

The editors of this book spent their younger years in sight of many of the excavations mentioned in this volume. They felt that the aim of the book should be to recapitulate the investigations by Hungarian archaeologists in Pannonia, especially in the postwar period. Some chapters produce catalogs of catalogs, which are useful and should be of assistance to students of archaeology for years to come. For the student of the Roman provinces (whose numbers are rapidly increasing as available classical sites become exhausted or difficult to reach), this book is a "condicio sine qua non". These aspects of the life of the ancient world will replace classical sites as centers of continuing interest. For the casual reader this volume will be a revelation of a cultural heritage and an evaluation of technical and scientific material thus far generally unavailable. But to both amateur and scholar it will be a valuable visual archive of picture material, much of which is new, never before published.

The book is the result of cooperative efforts among a number of specialists. A work of this type, based on spectacular, incompletely publicized discoveries, has been long overdue in the Western world. The contributors were given a free hand to explain the main achievements in their various fields. Thus the reader may get some repetitions where certain fields overlap, but such repetitions are unavoidable and, in most cases, necessary. Nevertheless, the editors feel that it is a comprehensive work, planned and written over a nine-year period, and that it presents the best coverage to date of Pannonian research since the Second World War.

Alfonz Lengyel George T. Radan