IRAN AND INDIA IN PRE-ISLAMIC TIMES: A LECTURE

By R. E. M. Wheeler

With an Appendix by Stuart Piggott

In November 1945 the Government of India sent a small "cultural mission" to Iran at the invitation of the Iranian Government. The present lecture was prepared by the Director General of Archaeology in India, as head of the mission, for an audience in Tehran, and surveys briefly some of the pre-Islamic problems in which Iranian and Indian archaeologists might usefully co-operate. For the most part it necessarily covers ground familiar to Indian readers, but it re-states certain of the problems and may help to place some of the detailed studies which have appeared in Ancient India in a wider perspective.

The Iranian plateau long constituted a main artery in the circulation of Asiatic cultures, and India more than most regions has received, if not always blest, vitalizing influences from that direction. Her earliest civilization, that of the Indus Valley in the third millennium B.C., and the minor cultures of that epoch in north-western India show significant though at present ill-defined affinities with certain Iranian cultures of the same general period. Later, it is to be supposed that the much canvassed 'Aryan invasions' left a common cultural imprint, however slight materially, upon eastern Iran and north-western India. Later again, the extension of the Persian Empire into India after 518 B.C. represents a political if not an archaeological overlap. And when Alexander the Great, as self-made heir to the Persian Empire, entered India in 326 B.C., he was not merely opening the way to Greek influences in the East but was confirming the traditional link between India and Iran; with the result that for centuries after his time Indian architecture was permeated with Iranian forms. These in turn were superseded or supplemented by new Iranian and western Asiatic formulae when the Muslim invaders swept into northern India from the twelfth century onwards. All these matters are, in outline, common knowledge. Their details are often in doubt, and without their details their significance is subject to misunderstanding. My lecture, although itself in general terms, is a plea for that detailed study, both in India and in Iran, upon which alone a proper understanding can be based.

It is fitting that we should begin with geography. Recently, as an official envoy it was suggested to me that I should fly from India to Tehran. As an archaeologist I chose, more aptly I think, to travel overland through the passes of Baluchistan. Alternatively, I might have re-attempted one or other of the ancient routes through northern Afghanistan, or the tedious coast-route of Makrān, retracing the tracks of Alexander or of the Persians, Scythians, Parthians, Mongols and other such folk as have in varying degrees linked India from time to time with the heart of Asia—not forgetting a certain eminent Nādir Shāh, encumbered with a peacock throne that did not belong to him. Indeed, we may suspect that this new arterial traffic of the air, which brings great cities like Tehran, Delhi, London and New York to within a few hours of one another, has at the same time given an added remoteness to vast and ancient regions of the world; so that, whilst a few human celestials flutter like spirits or super-butterflies at the speed of sound from flower to urban flower,
the greater part of mankind will be left, no less than in the past, to load his camels and donkeys and trudge behind them over the stony sand at a steady 2 1/2 miles an hour. Again as an archaeologist, I view this divorcement without dismay. The old philosophy that it is better to travel hopefully than to arrive need not be scorned by those new philosophers who would rather arrive than travel. Let us for a moment or two travel in the older way through some of the ancient gateways which have connected the history or prehistory of India with that of continental Asia.

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It is a familiar fact that the great Himalayan barrier and its extensions, which, on the map, give India an aspect of geographical exclusiveness, are in fact penetrable at a large number of points. For example, there are routes from China to the Brahmaputra in Assam; through Sikkim it is possible to reach the Tibetan plateau; further west a number of feasible if arduous routes enter Kashmir from Turkestan. The most notable of these routes used the famous Karakoram Pass, a desolate highway, if such it can be called, from High Asia into trans-Indus Kashmir. But neither this nor any other of these northern approaches has played any dominant rôle, so far as we know, in the formation of Indian civilization. Their importance lay rather in the reverse direction, in that they were amongst the chosen channels for the diffusion of Buddhism and certain aspects of Buddhistic art from India into central Asia and China.

On the north-western frontier of India and thence southward to the Arabian Sea the picture is a very different one. Here the approaches into India, though not always easy, are abundant and loom large in Indian history and prehistory. For the most part they are still frequented, with a preference for one or two main routes. They may be grouped into two series: a northern and a southern. The northern group links north Iran and the Oxus region with Kâbul and the central reaches of the Indus; the southern group links central and south Iran alternatively with Kandahâr, north Baluchistan and the more southerly reaches of the Indus, or with Makrân and the Indus delta. These two groups, as we shall see, are significant in the cultural relations of Iran and India.

The northern group today converges on the Khyber Pass, which has been a major traffic-axis since the establishment of Peshawar as a metropolis in the second century A.D. An earlier route followed the more northerly line of the Kâbul river with Chârsada, the ancient Pushkalâvâtî (20 miles north-east of Peshawar), as its immediate goal. South of the Khyber alternative tracks used and still use the Kurram Valley and the Peiwar Pass; and further south again the Tochi, Gumal and other vallies carry ancient thoroughfares from the direction of the Ghaznî-Kandahâr uplands. At this point, feeders from the southern group spread delta-like towards the Indus plain. The Zhob Valley carries or carried a modest traffic north-north-eastwards from the direction of Quetta, itself the northernmost of the three focal points of the southern group; the others being Kalât and Las Bela. South-eastwards from Quetta a route, now followed approximately by the railway, enters the plains via Sibi. Westwards from Quetta, a camel-route leads towards Kirman and southern and western Iran. And at the southern end of our series, Las Bela, now 'an insignificant Baluch town, ... must have stood full in the tide of human immigration into India for centuries in the past. It is a true gateway.'

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1 Aurel Stein, 'The Indo-Iranian Borderlands', Huxley Memorial Lecture, 1934, Journ. Royal Anthropological Institute of Great Britain and Ireland, LXIV (1934), 180ff., divided the frontier region into three zones; but his northernmost zone, north of the Kâbul river, is insignificant from the point of view of regular traffic and is here included in our northern group.

We have then a well-known geographical picture of an India mainly barred from the north but accessible by arduous though passable routes both from the southern fringe of the Iranian plateau on the west and from northern Iran and Turkestan on the north-west. I now, in the remainder of this lecture, propose to consider and compare two episodes in the spread of cultural elements within this vast area. One of these episodes is prehistoric, the other early historic; both of them link north-western India with Iran, and both bear testimony alike to the penetration of Iranian cultures and to the essential originality of their Indian recipients. In the course of many invasions, the civilizations of northern India have absorbed much, but they have always transmuted and Indianized that which they have absorbed. The two episodes chosen to illustrate this process are taken, first, from the third and second millennia B.C., and, secondly, from the fourth and third centuries B.C. The one concerns the Bronze Age and earlier cultures of Iran and the partially contemporaneous upgrowth of the earliest known civilization of India; the other concerns the break-up of the great Persian Empire of the Achaemenians and its cultural influence upon the beginnings of historic India.

It is now twenty-five years since Sir John Marshall and his colleagues of the Archaeological Survey of India first revealed the remarkable civilization of the Indus Valley at Harappā in the Punjab and at the still more celebrated site of Mohenjo-daro in Sind. The discovery was followed by that of other towns and villages of the same 'Harappā' culture in the Indus region, until today not less than thirty-seven such sites are known in the thousand-mile tract between the Arabian Sea and the foot of the Simla hills. Stray contacts between the Indus Valley civilization and dated sites in Mesopotamia show that the former was flourishing about 2300 B.C., but how much earlier it began and how much later it ended are still largely guess-work. My own estimate for the duration of the civilization as at present known, namely, c. 2500–1500 B.C., has been discussed elsewhere.¹

Both before and since the discovery of Harappā and Mohenjo-daro intermittent excavations have been carried out on prehistoric sites in Iran, notably by French and American expeditions. Relatively to the size and potentiality of the country, these explorations, valuable though they be, cannot yet be called extensive or conclusive: they have indeed opened up as many problems as they have solved. It is earnestly to be hoped that Iranian scholars will benefit by the experience of these expeditions and will themselves enter the field with skill and determination. No part of Asia would better repay systematic archaeological research.

Up-to-date, the investigations have revealed a diverse series of cultures dating back to the Stone Age (perhaps the fifth millennium B.C.) and extending through the so-called Copper or Chalcolithic Age (approximately the fourth millennium) into the Bronze Age of the third millennium and later. An American scholar, Dr. Donald McCown, has attempted bravely to bring order into this miscellany,² and has grouped these cultures broadly into two series. The grouping is based primarily upon the distribution of the painted pottery which is characteristic of all the sites in question; and, in particular, upon the alternative use of a red background or of a yellow (buff) background for the painted designs. Many sites have yielded fragments of both colourings, but in every case one or the other tends

¹ Ancient India, no. 3 (1947), pp. 78ff.
² D. E. McCown, The Comparative Stratigraphy of Early Iran (Oriental Inst. of the Univ. of Chicago, 1942); and 'The Material Culture of Early Iran', Journ. of Near Eastern Studies, I, no. 4 (Chicago, 1942). More recently, in prefatory remarks to an important paper by E. J. Ross on 'A Chalcolithic Site in Northern Baluchistan', Dr. McCown has expressed a generally similar view to that outlined in the present lecture as to the possible relationship of the Iranian plateau-cultures with the flanking riverine civilizations (Journ. of Near Eastern Studies, V, no. 4, 1946).
to dominate. On this basis it is found that the Red Wares extend through central and northern Iran, along the fringes of the Caspian Sea; whilst the Yellow Wares extend from Mesopotamia through southern Iran, in the lands bordering upon the Persian Gulf and the Arabian Sea. The site known as Tepe Sialk at Keshan, 150 miles south of Tehran, may be regarded as the approximate meeting-point of the two Wares in central Iran.

This same duality, again with many exceptions in detail, has recently been studied by Professor Stuart Piggott in connection with the painted-ware cultures of the Indian frontier. In the Indus Valley itself and in the northern Baluchistan hill-country east and north-east of Quetta, the Red Ware is predominant. In southern Baluchistan, down to the Arabian Sea, the Yellow Ware is predominant, thus forming a natural extension of the South Iranian series, however different in detail. There can be little doubt that, when central and northern Afghanistan are opened up more widely to scientific exploration, the North Baluchistan Red Wares—doubtless not undiluted by Yellow Wares—will link themselves similarly with the Red Wares of the Iran-Turkestan borderland; the most likely route geographically being along the fringe of the plateau west and south of the Hindu Kush massif, via Meshed, Herat and Kandahār.

In summary, then, from the Indus to Iraq (and beyond), we may for the moment recognize two broad geographical and, in a restricted sense, cultural zones, a Northern and a Southern, a Red and a Yellow. In the wider movements of human culture, what does this seemingly trivial differentiation signify?

Let it be said at once that, within the two broad categories, there is a vast divergence of detail. It is rather the general geographical coherence of the scheme than its validity in detail that gives it a provisional utility in the present phase of research. Within the relatively short compass of the Indus frontier itself, both the Red and the Yellow groups subdivide into a number of units of varying character and age, which demand a far more analytical study than they have yet received. And in the broken country which constitutes a great part of the two main zones, the isolation of cultural units and the incalculable time-lag in their interaction render a widespread diversity inevitable, its interpretation difficult and dangerous. The scientific excavation of half-a-dozen carefully selected sites on both sides of the Indo-Iranian (to say nothing of the Indo-Afghan) frontier is the necessary preliminary to a fresh advance. Here is a golden opportunity for co-operation between Iran and India, to their mutual profit. Ancestral Iran and ancestral India share the same problem.

And surely that problem is of a kind calculated to stir the imagination of the most detached spectator. At every point it touches major relationships and achievements in one of the great formative phases of human progress. I may refer to one or two of these broader aspects. It has long been a familiar fact that in the central highlands of Baluchistan there remains today an island of that non-Aryan ‘Dravidian’ speech which forms the basis of the vernaculars of southern India. The supposition is that this island, that of the

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2. I would emphasize the provisional nature of this colour-classification. More complex and significant categories are beginning to replace it as knowledge accumulates. In any case the colour-division does not work in India below the foot-hills of Baluchistan. On the great plain of the Indus-system any such division as may have subsisted at the outset must quickly have been obscured by easy lateral transit. Actually, the Red Wares are dominant throughout the Indus Valley.
3. Since the above was written, Dr. Donald McCown has spent several months in India (1946-47) upon this task, with important results of which the publication is now awaited. His localization and chronological equation of cultures and industries will provide a fresh starting-point for careful selective digging.
4. In view of the predominance of Red Ware in the Indus Valley, the need for linking up N.E. Iran with India by excavation in Afghanistan assumes a special importance for India.
Brāhuīs, is a last outlying vestige of a once-continuous Dravidian linguistic system extending at least from the borders of Iran to the furthest point of the Indian peninsula, but now left derelict by erosion like a sarsen-stone on Salisbury Plain. From this not impossible supposition it has been an easy step to presume an early cultural continuum from India to Iran and Mesopotamia; and a number of Indian and other writers of varying authority have alternatively derived a pre-Aryan India from Sumer and Iran, or, more readily, a proto-Sumerian Mesopotamia from India. The latter view even had behind it at one time the high authority of H. R. Hall.\(^1\) It may be admitted that the supposition has not been supported by subsequent archaeological evidence. There is in South or ‘Dravidian’ India no known culture significantly comparable with that of early Sumer and no ancient civilization on any equivalent cultural plane. In saying this, we have constantly to bear in mind the reservation that our present knowledge of the early cultures of South India is sketchy and liable to extensive revision.

Relegating this great problem for possible consideration at some future date, we have at our doors another major enquiry which may ultimately be found to have some bearing upon it. I have already referred to the now-famous civilization which took shape in the Indus Valley sometime in the third millennium B.C. and perhaps towards the middle of that millennium. How did that civilization—one of the three or four great civilizations of the pre-classical world—arise? What was the contribution of Iran and Iraq to its complex structure? Did it rather spring spontaneously from the soil of India? These are questions which affect vitally our evaluation of human endeavour in ancient Asia, and they are questions which can only be answered by enquiry of an unremittingly objective character. Experience shows how easy it is for such discussion to degenerate into spurious sentiment and national rivalry.

We may confess at once that, at present, we have no answer to these questions. But let us briefly review the principal known factors.

In the fourth millennium B.C. we have in Iran a series of chalcolithic cultures which are marked by fairly evolved industries, particularly that of pottery-making, but display, so far as we know, no great advance along the path of urban development. That is but natural in view of the rigorous conditions of living presented by the stony, hill-divided plateau of Iran to a population still inadequately equipped. During that millennium, however, a geophysical change was occurring away to the west of the plateau, in the vicinity of Fars: what is now the lower valley of the Tigris-Euphrates system was gradually silting up and offering tracts of fertile alluvium where previously sea and salting had prevailed. Into this promised land, it would appear, some of the plateau-folk found their way. Susa, Ur, al’Ubaid yield traces of them at the lowest level. And at once the major conditions required for the production of city-life, civilization, were assembled in readiness for the next phase: a fertile soil, water, easy river-transit, unimpeded caravan-routes, an industrious people. In such conditions development was rapid. The evolved urbanity of Early Dynastic Ur is today sufficiently familiar, at any rate in outline, and I need not occupy your time by recalling it to you.

But it is both probable and natural that the path of this urban development was not altogether a smooth one. In the course of it we can recognize cultural changes sufficiently abrupt and extensive to suggest interruption and the advent of influences from new directions, probably outside Iran. The implication of these changes in respect of Iran cannot yet indeed be defined, but it may be that, for a time, Iranian enterprise was diverted by them from the Mesopotamian plain into other channels. Did these alternative channels lead

Part of the town-plan of Ur, early 2nd millennium B.C.
(Antiquaries Journal, XI, 1931)
Rājgir: town-defences at the Bāngāṅā defile, c. 6th century B.C.
towards India? Did the Iranian reservoir, dammed up towards the west, now begin to
overflow eastwards into the Indian borderland? Some such movement would provide a
context for the scattered scraps of evidence which are known to us from Makran and
Baluchistan. And it would be logical to see in such a movement from the plateau to the
Indian plain a repetition of the previous movement to Mesopotamia, with parallel results
in the creation of a great riverine civilization, that of the Indus Valley. Unfortunately the
logic of history is not always of so simple a kind; and, whilst we may expect that this
conjecture contains a measure of truth, it does not necessarily contain the whole truth.

For it has to be admitted that the culture of early Susa and Ur displays a more recogniz-
able affinity with those of the west-Iranian plateau than does the culture of Harappā
or the Indus Valley with those of Baluchistan. A remarkable and at present unexplained
feature of the Indus culture is its separateness, combined with an astonishing uniformity
throughout the great length of its territory. Its uniformity may perhaps be regarded as
the reflection of a high degree of administrative centralization of a kind which occurs from
time to time throughout Indian history and is easily explicable in a region such as the Indus
Valley where there was no natural obstacle to intercommunication. Certainly the out-
standing size of the cities of Mohenjo-daro and Harappā in relation to the other thirty-
five known sites of this culture—all of them relatively small towns or villages—can most
naturally be interpreted as evidence of an imperialist element in the Indus polity. But the
quality of separateness is less readily intelligible, and, as a major problem, I may pause for
a moment to define it.

In essential characters the Indus or ‘Harappā’ culture, as represented by its most
abundant manifestation, its pottery, is unique. Its partiality for hatched patterns, its free
use of intersecting circles and their variations, of scale-pattern, even of motifs based on the
pīpal or similar leaf, may occasionally be matched in detail in Baluchistan or even further
afiel, but as a characteristic assemblage it is without analogy. Its steatite seals bearing ani-
mal-figures often of Indian species—humped bull, elephant, tiger, rhinoceros—are absolutely
without parallel; as is the uninterpreted script with which they are associated. Some of its
bronze equipment, notably a curved type of knife-blade, is peculiar to the culture, and
the extreme scarcity of the superior socketed tools at a time when they were familiar to
Mesopotamia is further evidence of isolation. A few objects manifestly of Indus origin
found in Mesopotamia, and still fewer of Mesopotamian origin found in the Indus Valley,
are useful for the correlation of chronology but serve to emphasize the separateness of
the two civilizations.

And yet the idea of city-life on the developed scale of Mohenjo-daro and Harappā
at a time when civic models were few and far between, combined with the certainty that
this development in India was considerably later than the equivalent development in
Mesopotamia and south-western Iran, seems to impel the inference that there was some sort
of causal relationship between the two. Furthermore, there is at Mohenjo-daro, in contrast
for example to Ur, an indication of sudden maturity which suggests the intrusion of a per-
fected civic scheme. True, the lowest levels of Mohenjo-daro have not yet been explored
and our knowledge is therefore incomplete at a crucial stage. But to a very great depth the
rigid lay-out of the city, with its long, straight, well-drained streets and its insulae
or rectangular house-blocks (fig. 1), makes it clear that the plan was at an early phase
controlled by experienced civil architects. At Ur, on the other hand, the town-plan as
we know it, with its meandering main streets, suggests a basic village-plan from which
the city was eventually evolved (pl. XXIII). Always with the reservation that our knowledge
is incomplete, we seem to have in Mesopotamia the early evolution of an idea, in India

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1 See map in Ancient India, no. 3 (1947), p. 58.
the later imposition of the idea perfected. If this inference is correct, we are almost driven to suppose that the civic idea came to India in some fashion from Mesopotamia or southwestern Iran, but that in India it was re-created by an essentially alien, essentially Indian, cultural environment.

Now this is precisely the conclusion which all analogy in India would lead us to expect. It accords exactly with the known trend of the Indian genius. At a far later date, in the full light of history, we have in the Islamic invasions of India far more drastic and wholesale intrusions of foreign (largely Iranian) ideas than is likely to have occurred in the conditions of the third millennium B.C. Yet we have but to compare the Isfahān of Shāh Abbās with the nearly contemporary Fatehpur Sikri of Akbar the Great to see how completely the Iranian traditions and concepts of the Persianized Moghuls—the Iranian ideas of mosque, tomb, and hall of audience, the rhythmic employment of the voussoired arch, the emphasis of the high dome—had been reoriented by the Hindu mind and the environment of Hindustan. We can, I think, best visualize the relationship of the Indus civilization with its contemporaries and forebears of Iran and Mesopotamia along those lines. It is the age-long story of the encompassing personality of India, with its unpredictable capacity for combined assimilation, and invention. We may analyze it—and the further analysis of the early relationships of Iran and India cannot fail to yield results of high value to our appreciation of the growth of civilization in both countries—but we cannot hope to reduce it to an easy historical or archaeological formula.

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To end this first part of my lecture, I may once more bring Iran into the centre of the stage. I have elsewhere conjectured that Aryan invaders from Iran may have been responsible for the break-up of the Indus Valley civilization.¹ The suggestion is not a new one, but it derives a new modicum of force from the recent recognition of massive fortifications in the two principal Indus cities and, by implication, in others of the series. Archaeological evidence indicates that the Indus civilization was still extant at the beginning of the second millennium B.C., at a period approaching the conventional date for the main Aryan influx into the Punjab, namely the fifteenth century B.C. With this dating, Marshall’s reasonable thesis that the Indus civilization was essentially non-Aryan in character is consistent.² Now the Rigveda, which preserves some image of the great incursion into the Land of the Seven Rivers, speaks constantly of the ‘forts’ or ‘citadels’ which lay across the path of the invaders. Indra, the Aryan war-god, is ‘fortress-destroyer’; he demolishes ninety, ninety-nine, a hundred citadels; he ‘renders forts as age consumes a garment’. Massacred men, women and children are found in the topmost levels of Mohenjo-daro. Where else, save in the Indus cities, were there non-Aryan citadels worthy of the prowess of Indra and his Aryan following? Certainly no rival claimants are known to us. On the present showing, it is a fair inference that the Indus civilization in its old age was cut down by those who gave their name to Iran—an act of zealous neighbourliness which cost India an ancient and perhaps over-ripe civilization but gave her the crude elements of a more modern one.

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I now pass over a thousand years which are in India a complete black-out save for the dim flicker of the Vedic hymns, and turn to a period where greater certainty prevails.

¹ Subsequently published in Ancient India, no. 3 (1947), pp. 82ff. Cf. R. N. Dandekar in Annals of the Bhandarkar Research Institute, XXI (Poona, 1941), 34, footnote.
OLD RĀJGIR
CITY-WALL AT THE BĀNGAṅGĀ DEFILE
INCLUDING SITE OF SOUTH GATE

FIG. 2
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In doing so, I propose to remind you of another example, this time in the early historic period, of that process of cultural assimilation and transmutation which we have just recognized in the prehistoric relationships between India, Iran and the West.

Subsequently to the third millennium B.C., the earliest stone structures in India to which an approximate date can be attached are the remnants of the great defences of Old Rājgīr in Bihar. These defences, 25 miles in length, enclose the site of the city which was associated in the sixth century B.C. with the Buddha and Mahāvīra during the first formative period of the Buddhist and Jaina religions. The work consists of a massive wall, dry-built, of large unshapen stones, with square bastions at frequent intervals (pls. XXIV and XXV and fig. 2). These rugged works can scarcely claim the name of architecture; nor can that term be applied with any show of enthusiasm to the rough stone-and-mud structures of pre-Alexandrine Taxila, in the Punjab. There, on the Bhīr Mound site, a considerable area of streets, shops and houses dating from the fifth and fourth centuries B.C. was cleared in and before 1945.¹ With rare exceptions, the buildings are a rambling conglomeration of ill-aligned and ill-built walls, resembling rather the slum of a poverty-stricken suburb than the central lay-out of a capital city. Almost the only architectural ‘feature’, if such it may be called, is the occasional use of untidy stone pedestals designed to carry wooden roof-posts. The general culture of the city was of the same inferior order: only at the end of the fourth century, at or shortly after the arrival of Alexander the Great, do considerable hoards of sophisticated jewellery, including two superb gems of Achaemenian workmanship,² enliven the monotony of the scene. It is likely enough that these hoards were either Persian loot brought to Taxila by Alexander’s following, or were otherwise a sequel to the devastation of the Persian Empire and the accompanying dispersal of Achaemenian craftsmen and craftsmanship.

In ‘Aryan’ India, the term ‘architecture’ can first be applied unreservedly to the famous columns, once more than thirty in number, upon which the emperor Aśoka, in the middle of the third century B.C., carved his pious injunctions to his subjects. It has long been recognized that these columns, without precedent in Indian architectural forms, represent in partibus the craftsmanship of the Achaemenian kingdom of Iran.³

The name ‘Persepolitan’ which is commonly given to them by writers on Indian architecture is strictly a misnomer. Persepolis was destroyed completely by Alexander in 330 B.C., and, though there was a subsequent occupation of a kind, it differed materially from that of the vanished Achaemenian régime. The Aśoka columns were erected after 250 B.C., more than three quarters of a century later. At their best, they are distinguished by a superb carving and finish, including a lustrous polish of a kind which in India is characteristic of no other age. These are Iranian features. The masonry of the palaces of Darius and Xerxes at Persepolis ‘goes to the extreme of highly polished stones, looking, when well preserved, like mirrors of black marble’.⁴ But this perfection of craftsmanship

² These gems (Ancient India, no. 1, 1946, p. 33), were published as Ionian Greek, but I prefer the alternative view of Dr. John Allan that their workmanship is Achaemenian.
³ Only the form and technique of the Aśokan pillars are here in question. The actual custom of setting up memorial pillars was Indian rather than Persian, and we have here therefore another instance of the adaptation of a foreign expression to Indian concepts. See Dr. Chakravarti’s discussion above, p. 23. Pl. XXVIII shows the famous Sārnāth capital, and pl. XXVII B a similar lion-type on an unfinished impost at Persepolis.
⁴ E. Herzfeld, Iran in the Ancient East (Oxford, 1941), p. 236. The most notable surviving examples of mirror-like polish are to be seen on the window-jambs of the hadish of Xerxes at Persepolis.

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A. Rājgir: inner face of town-wall E. of the Bāngāṅā defile

B. Rājgir: bastion 2E, E. of the Bāngāṅā defile
Pāṭaliputra: timber-lined drain through defensive palisade, c. latter part of 4th century B.C.
A. Pātaliputra: defensive palisade at Bulandibāgh, c. latter part of 4th century B.C.

B. Unused impost at Persepolis, c. 330 B.C. Height 8 feet.
Aṣokan capital at Sārnāth, c. 245 B.C. Height 7 feet.
A. From Pātaliputra, c. 3rd century B.C. (Patna Museum).
   Height 2 feet 9 1/2 inches.

B. From Sārnāth, c. 2nd century B.C. Height 1 foot 1 1/2 inches.
appears to have perished in the flames of Persepolis in 330. The former high polish and finish of the masonry were abandoned immediately after the Greek conquest. Where did Aśoka, more than two generations later, acquire his sculptors and his masons? Certainly not directly from Persepolis. And incidentally—a small point—the innumerable columns of Persepolis are invariably fluted; those of Aśoka have plain polished shafts. In this respect they resemble the columns of the earlier royal city of Pasargadā, some 50 miles north of its successor Persepolis. The unfluted type was indeed more normal than the fluted in Achaemenian architecture, and in India it was the normal plain type that took root, and was used not merely as a vehicle for Aśoka’s exhortations but also as a structural element in the Mauryan capital city of Pāṭaliputra (Patna) in Bihar, to which I shall refer again. There is in fact no certain evidence of the use of fluting or faceting in India earlier than the inscribed column of Heliodorus at Besnagar, Central India, c. 140–130 B.C. or a little later.

If it was not, then, from the contemporary Persepolis that Aśoka drew his Iranian craftsmen, how came Achaemenian forms and craftsmanship to re-appear in the heart of India two or three generations after the end of the Achaemenid empire? Historically, the answer is easy enough; only the material link is at present missing. At the death of Alexander, and in spite of the counter-efforts of his eastern successor Seleukos the Conqueror, the Indian kingdom of Aśoka’s grandfather, Chandragupta, was extended westwards through Baluchistan and Afghanistan to the very borders of Iran. In this western trend, the Indian king was absorbing a territory which, though basically non-Iranian, was prepared by long use for the circulation or transit of Persian ideas and indeed officially employed a Persian script for its vernaculars.

Across this partly Persianized no-man’s land, the empire of Chandragupta advanced westwards at a crucial moment. The wealthy despotism round which Achaemenian culture had revolved was shattered, and the old metropolitan craftsmanship was for the moment homeless. But Chandragupta was an ambitious autocrat in the Persian manner, generically if not specifically the cultural successor of the Great King. Amidst the marchings and counter-marchings of Alexander’s rival generals, the court of the Indian despot must have seemed the natural refuge for the craftsmen of the dead Darius. And it is no matter for surprise that far to the east, in the plain of the middle Ganges, the homeland of the Mauryan dynasty which Chandragupta founded, clear evidence has been discovered of the handiwork of these Iranians and their first Indian pupils.

Reference has already been made to the fortifications of ancient Rājgir and to the distinguished priority which their rugged masonry holds in the history of Indian architecture. Subsequently, about the middle of the fifth century B.C., the capital of Magadha was transferred to the richer and more accessible plain beside the former junction of the Son and the Ganges. It was here, at Pāṭaliputra, that the usurper Chandragupta established himself by intrigue and force of arms about 322 B.C., and it was here that Megasthenes, the envoy of Seleukos, found the palace of the Mauryan king some twenty years later. The scraps of information bequeathed to us by Megasthenes combine with equally fragmentary archaeological evidence to indicate with fair certainty that beneath the soil which now covers the water-logged site of Pāṭaliputra lies the surviving handiwork of our two missing generations of Iranian craftsmanship.

1 Ibid., p. 278.
2 The earliest example of the Kharoṣṭhī script of north-western India, derived from the official Aramaic script of Persia, is as late as c. 257 B.C., but there can be no doubt that it was evolved before the burning of Persepolis. For the script, see Sten Konow, Corpus Inscriptionum Indicarum, II, Pt. I, Kharoṣṭhī Inscriptions (Govt. of India Press, Calcutta, 1929).
From the oft-quoted descriptions by Megasthenes, we know that in his day the city formed an oblong, 9½ miles by 1½ miles, surrounded by a ditch 200 yards wide and a timber palisade with loop-holes for archers; and that the palisade was reinforced by 570 towers and pierced by 64 gateways. In the royal palace, as we are told by Aelian, following Megasthenes, there was much which was 'calculated to excite admiration, and with which neither Susa, with all its costly splendour, nor Ecbatana, with all its magnificence, can vie. In the parks tame peacocks are kept, and pheasants which have been domesticated; and cultivated plants... and shady groves and pastures planted with trees, and tree-branches which the art of the woodman has deftly interwoven... There are also tanks of great beauty in which they keep fish of enormous size but quite tame.'

The whole description is significantly reminiscent of a Persian 'paradise'.

Of the splendour that was Pataliputra little is known to us today in material form, but that little is precisely what the circumstances have already led us to expect. As long ago as 1896 a trial-excavation, conducted without method, brought to light a column-capital of a familiar Achaemenian pattern (pl. XXIX A, cf. pl. XXIX B). It has the stepped impost, side-volutes and central palmettes of its Persian prototypes, and its design if not its execution is attributable to an early phase of the transplanted Iranian craftsmanship. Two stone legs of a throne of Achaemenian type were also found (see below, p. 101). Subsequently, in 1912, a more determined attempt was made to reveal the Mauryan city. The methods employed were scarcely more methodical than those of 1896, but the excavator succeeded in uncovering some part of a large pillared hall which may safely be related, as the excavator realized, to the pillared halls of the Achaemenids (fig. 3). So far as explored, the plan of the Pataliputra building represents an unframed cluster of some 80 monolithic columns showing the high polish which is in India distinctive of the Mauryan period and is, as already remarked, of Iranian descent. In front of the columns is a row of massive timber rafts, presumably designed to carry a platform or staircase on the unstable subsoil of the site. Unsatisfactory though the evidence is in detail, it is clear that we have here an Iranian diwan or apadana or audience-hall, and that we are dealing once more with a deliberate 'Persianization' that bespeaks the presence of imported ideas and doubtless of imported master-masons. It is to be hoped that, in spite of the technical difficulties of digging to the required depth in the water-logged soil of the site, a scientific extension of these excavations may be attempted and that a coherent plan may be produced. Such a plan would be of the utmost interest alike to Iranian and to Indian studies.

It may be added that the wooden fortification referred to by Megasthenes has also been identified in part by digging (fig. 4, and pls. XXVI and XXVII A). A double line of upright timbers, 15 feet high, 14½ feet between the parallel lines, and bonded together by a 'floor' and a 'roof' of cross-timbers, has been traced for a considerable distance and appeared to the excavator to 'extend almost indefinitely'. Whether this was a passage within an earthen rampart or whether, as is more likely, the structure was filled with earth and formed its core or revetment, was not ascertained, although the point is one which could readily be determined by trained observation. This type of fortification is at present without analogy in India, although Megasthenes records of the Indians that 'all their towns which are down beside the rivers or the sea are made of wood, for towns built of brick would never hold out for any length of time with the rains on one hand and, on the other, the rivers which rise above their banks. But the towns which are built on elevated places out of reach are made of

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1 Aelian, Nat. Anim., XIII, 19 (third century A.D.), incorporating Megasthenes (end of fourth century B.C.).
2 L. A. Waddell, Report on the Excavations at Pataliputra (Patna) (Calcutta, 1903), pl. II.
5 Unless possibly at Ujjain.—B. C. Law, Ujjain in Ancient India (Gwalior, 1944), pl. I.
brick and clay’. It would appear therefore that the fortifications of Pātaliputra, in contradistinction to the pillared hall, represent the unmodified Indian tradition of construction.

With the Mauryan dynasty I approach the end of my short survey of the material influence of Iran upon pre-medieval India. It may justly be said that the cultural debt which, long before the rise of Islam, India already owed to Iran was restricted in scope but of basic importance. For many centuries after the last of our Achaemenian refugees had vanished from the scene their influence permeated Indian craftsmanship: so manifestly that there is perhaps a tendency on the part of the historian sometimes to exaggerate and distort it. Let us in conclusion summarize some of its main features, and attempt to appraise it with all fairness both to Iran and to India.

It may be recalled, in the first place, that the customs of inscribing upon rock and of carving ‘architectural’ caves out of the rock were established in Iran long before the date of the earliest known examples in India. From the seventh century B.C. onwards, if not earlier, tombs in the likeness of pillared halls were being cut into the cliffs of Media and Persia; whilst the earliest dated cave-buildings of India are those carved in the reign of Aśoka about 250 B.C. in the Barābar hills near Gayā in Bihar. The Bisutūn or Behistūn rockinscription of Darius I dates from c. 518 B.C.; there is in India no precedent for the rock-edicets cut at the bidding of Aśoka in and after 257 B.C. In these things, the Mauryan emperor was deliberately adopting the methods of the Great Kings, whose mantle had in a sense descended upon him. But the resemblance is one of technique, not of spiritual or aesthetic content. Save for an occasional formula, nothing could be more unlike the commemorative and administrative records of the proud Persian despots than the gentle exhortations of the equally despotic but more humble-minded Buddhist king. And the pillared porticoes of the Iranian caves were not, as yet, the pattern for the Indian rock-carvers. Instead, these found their models, for the present, in the round huts and bamboo doorways of their own countryside. Pillared porticoes were to follow, but most of the ‘structural’ details were to remain substantially Indian in their origin.

To this last statement there is a notable exception, which at the same time emphasizes the rule. The elements of the Indian architectural ‘orders’ were basically Iranian, and rarely lost all recognizable trace of their alien origin until the Middle Ages were well advanced. The bell-shaped lower member of the capital (pl. XXVIII), which is common to Achaemenian and Aśokan architecture, is sometimes called an ‘inverted lotus’, and there is no doubt that it was absorbed into what may be called the lotus-complex. In origin, it may have owed more to the palm-tree; indeed, the immensely tall and slender columns of Persepolis irresistibly suggest a palm-grove. But as the inverted lotus, or merely as a fluted or even unfluted adaptation of that form, this architectural element entered widely into the construction of the Indian ‘orders’ until, in the later Middle Ages, it was obscured by the dominance of the Chālukyan lathe or by the baroque fantasies of Vijayanagar. The elaborately fluted and enriched column-capitals for example, hewn out of square piers in the sixth century A.D. by the rock-cutters of Badāmi, in the southern part of the Bombay Presidency, retain the elements of this form more than eight centuries after its introduction into India; and even the plain or faceted capitals of Pallava and Chola architecture in the far south are derived ultimately from the same remote source.

Nor does the architectural link with Iran end there. In India, as in Iran, the weight of the architrave-beam is commonly transmitted to the column through an oblong impost-block or bracket, spread laterally to take the strain, rather than through the square impost of the more classical orders. These brackets varied in shape from age to age, and can to a considerable extent be classified chronologically. Some of them are elaborately carved

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into double or addorsed animal-forms which go back to the ‘protomes’ or double animals of the Achaemenian imposts (pl. XXVII B). Others are moulded into a variety of shapes which have close or identical counterparts in ancient and modern Iran, shapes sufficiently numerous and specialized to suggest a historical link between the two.

Some at least of these resemblances are good evidence for the Iranian tradition in Indian architecture. But it is constantly desirable to check and correct them against the fundamental fact that both the Iranian and the Indian architects were attacking similar problems with the same materials and under similar conditions. Both were thinking primarily in terms of timber-construction; and both were using rock or masonry mainly as a more permanent medium in which to render the forms that timber had suggested to them. They were both accomplished masons within the simple compass of trabeate construction, the only problem being that of supporting a vertical weight of greater or less degree, with negligible lateral thrust. ¹ But in neither case was there normally any real integral relationship between the individual stones of the structure and its architectural or sculptural design. ‘The Median stone-masons, when making columns, doors, windows or stairs, used to build up an artificial rock of the size and approximate shape required, and carved the wanted object out of that rock, as a sculptor carves a figure out of the raw block. Never is the object dissected into its structural components, in order to shape the stones according to their function. Old Iranian masonry never gets far away from its origin, the fashioning of rocks.’ In Greek masonry ‘the function rules the shape. Such a thing has never been attempted in Iranian masonry.’ ² The same remark is essentially true of Indian masonry. Far down into the Middle Ages it remained a practice to build an Indian temple of rough blocks and to carve them into shape afterwards (see pl. XXX). The only appreciable difference between the rock-cut and the free-built structure was the physical act in the latter case of quarrying and transporting the stones, and the necessity for providing an outside as well as an inside for the building. It may be added that, in Indian architecture, the resulting detachment of carver from builder was liable to lead, at the best, to a riotous and challenging independence of the decorative ornament and, at the worst, to the treatment of the building as a mere poster-hoarding or postage-stamp album. By reason of its essentially static and architectural quality Iranian sculpture offended less flamboyantly in this respect, but even there the solemn processions of gods and tyrants, soldiery and tribute-bearers, are manifestly unconscious, in great measure, of the vagaries of the building which they adorn.

I have dwelt on resemblances, both in general character and in detail, between the mature architecture of the Achaemenid empire and the incipient architecture of Mauryan and post-Mauryan India. Such resemblances are important: they link man to man and mind to mind, and give a proper coherence to the variegated history of civilization. But resemblance must not be confused with mimicry; the Indian architect quickly exchanged his borrowings into his own currency. ³ Indeed, the relationship of early Indian architecture to its Iranian precursor was not unlike that of the Kharoshṭhī alphabet of India, already cited, to that of the Persian Aramaic, whence it was adapted to the local Indian Prākrit. Or again it may be compared with those elusive similarities which we have noted between the Bronze Age civilization of the Indus Valley and its contemporaries or precursors in Iran and Iraq; similarities which fail to mask the strong individuality of all three regions. It is

¹ The barrel-vaulted roofs of the Indian chaityas, of light timber-construction, scarcely provide an exception to this rule.

² E. Herzfeld, Iran in the Ancient East, p. 238.

³ Reference may be made in this context to A. U. Pope, ‘Some interrelations between Persian and Indian architecture’, Indian Art and Letters, N.S., IX (1935), 10ff.
idle to speculate upon the course which Indian craftsmanship might have taken had it been deprived of its Iranian direction. We may content ourselves with the reflection that the situation in northern India at the end of the fourth century B.C. presents one of those convergences of circumstance which, like the Persian War on Greece less than two centuries previously, constitute from time to time a major focus in the history of civilization. The break-up of the old Achaemenian civilization by Alexander, the scattering of the metropolitan craftsman of Iran, the simultaneous emergence of new and powerful patronage in India, and, not least, the capacity of the Indian craftsmen for adaptation and transmutation, all combined in the following centuries to establish an architectural tradition which, after all, resembles only itself. This conclusion is a testimony to the Indian genius but is no belittlement of the part played by Iran, then as earlier and later, in stimulating and helping that genius to find expression.

APPENDIX

THRONE-FRAGMENTS FROM PĀṬALIPUTRA

By Stuart Piggott

In the Indian Museum, Calcutta, is a pair of stone carvings (Nos. 5582-83) excavated by Waddell from the Kumrāhār site at Patna and consisting of two griffins about two feet high, carved in the round in white sandstone and finished with the well-known ‘Mauryan polish’. These have been published more than once and assigned on stylistic grounds to the second rather than the third century B.C., but their significance does not seem to have been adequately appreciated. The Kumrāhār site was shown, in the excavations carried out by Spooner subsequently to Waddell’s diggings, to contain the remains of a great hall with a timber sub-structure and roof supported on polished sandstone pillars (see above, p. 96), which can only have been part of the palace of the Mauryan kings at Pāṭaliputra, and it is my purpose in the following notes to show that the two griffin carvings under discussion are most likely to have been part of a stone throne or chair of state in that palace.

In themselves, the twin carvings (of which one is drawn in fig. 5, 1) do not of course admit of only one explanation for their use. They may be survivors of a series which formed brackets or consoles, in, for example, a roofing scheme (the flattening of the head presupposes that they carried some architectural member or similar feature), or they may be detached sculptures from a composite group, and in looking for parallels we may turn to a very similar sculpture from the Kankālī Tilā at Mathurā, probably first century A.D. (fig. 5, 2). Here is a dragonesque figure with clear analogies to the Patna beasts, and showing conspicuous tenon-joints for incorporation into some composite stone structure. Vogel, in publishing this sculpture, believed it to have been an angle bracket in a torana of a stūpa of Sānchi type—an explanation more likely on a site that contained stūpa remains, as did the Kankālī mound, than in the ruins of a palace as at Patna—but I prefer to consider it also as being part of an elaborate stone chair. Both sculptures, I suggest, the Patna pair and the single example from Mathurā, originally formed part of the front of stone seats either, as at Patna, functioning as the front legs and carrying the arms of the chair on their heads, or at Mathurā, as an ornamental bracket in the angle formed by the leg and the arm.

Support for such a suggestion is fortunately available from more than one source. Among the sculptures from the Amarāvatī stūpa (second century A.D.) are at least three or four representations of thrones with lion figures forming brackets in exactly the position I have assumed for the Mathurā griffin (see for instance, fig. 5, 3). The thrones here, with their elaborate makara-terminals and lion-figures, are presumably of wood, but the translation to stone is simple enough and was a process very much in the minds of the masons and stone-carvers of the first two centuries B.C. who were, at Sānchi and so many other sites, carrying out building and sculptural schemes which were directly modelled on wooden prototypes. The lion throne in Hindu iconography has in

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2 J. P. Vogel, ‘La Sculpture de Mathurā’, Ars Asiatica, XV (1930), pl. XI.
3 J. Ferguson, Tree and Serpent Worship (1868), pls. LXXI, LXXIV and XCII.
FIG. 5. 1, stone figure from Pātaliputra (one of a pair), ht. 27 ins., now in the Indian Museum, Calcutta, third-second century B.C.; 2, stone figure from Mathurā, ht. 34 ins., now in the Lucknow Museum, probably first century A.D.; 3, throne with makara and lion figures from a carving at Amarāvati (after Fergusson), second century A.D.; 4, leg of throne from a carving at Naksh-i-Rustam, Persia, Achaemenid (after Sarre and Herzfeld); 5, bronze leg of throne from Persia (one of a pair), probably Achaemenid, ht. 20½ ins. (after Pope); 6, wooden leg of chair, originally painted, from Niya, Khotan, ht. 19 ins., third century A.D. (after Stein)
fact a recognized name—sinhāsana—and an excellent representation of a throne with lion figures in the position I have assumed for the Patna griffins is contained in the well-known statue of Vima Kadphises from Maṣṭ near Mathurā, where the Kushan ruler is scultpured life-size and in the round, seated on a throne the front legs of which are formed of standing lion-figures.¹

If therefore we accept the probability of the Patna griffins having formed part of a ceremonial chair or throne we may consider the probable origins for such a form. The use of stylized animals for such a purpose is of course relatively common in the ancient world and there is always a possibility that the idea is an independent invention within India, but the actual griffin types significantly point to a more probable origin outside the Mauryan empire. The debt which the culture built up by Chandragupta Maurya and his successors owed to that of later Achaemenid Persia has long been recognized; the imperial organization with its Royal Road, the pillared hall at Pātaliputra built on Persepolitan lines, architectural details in pillar capitals, etc., the opening formula and the whole method of setting up the Aṣokan Rock-edicts, and even curious details of court ritual such as the royal hair-washing—all these go to show the close contacts in ideas which existed between Persia and India in the third century B.C. It is not remarkable, therefore, that we should find that the legs of the Achaemenid royal couch, as shown for instance in the Naksh-i-Rustam reliefs,² are in fact formed of griffins not at all dissimilar from the Patna beasts in essentials (fig. 5, 4), and there are in existence two pairs of legs of actual chairs or thrones in bronze from Persia with the griffin-motif brilliantly carried out (fig. 5, 5).³ The date of these bronze objects is debated; they have been claimed as Sasanian as well as Achaemenid and, although stylistic evidence is not unambiguous for either dating, the earlier date certainly does not seem in any way unlikely. Their interest with regard to Indian parallels lies in the fact that a griffin-figure of exactly the same style, down to details of the foliated ornament on the chest, has been found in Afghanistan, and may be a significant pointer to contacts between Persia and India in Achaemenid times.⁴

The Indian evidence suggests, as we have seen, that the lion- or griffin-throne idea continued well into the early centuries A.D. in India, as of course it did elsewhere. Fig. 5, 6 shows a very rough provincial form in wood from Khotan dating from mid third century A.D.⁵ and examples could be cited from all over the classical world, including the remote province of Roman Britain at this time.⁶ Its use on royal furniture continued in Persia through the sixth and seventh centuries A.D., when the Sasanian monarchs are shown with couches supported on griffins and similar creatures.⁷ Here it had presumably acquired a certain ritual significance as an essential part of the royal throne with a history going back to the days of Cyrus and Darius.

To sum up: the two stone figures of griffins from Patna seem likely to have formed part of a stone chair or throne which itself formed part of the furnishings of the Mauryan palace there. The throne-type probably derives from Achaemenid Persia, and would be one more piece of evidence for the connection between the two civilizations from the early third century B.C. onwards.

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¹ J. P. Vogel, op. cit., pl. II.
² F. Sarre and E. Herzfeld, Iranische Felsreliefs (1910), fig. 5. Cf. also Perrot and Chipiez, Hist. de l’Art en Antiquité, V, fig. 324.
³ Pope and Ackerman, Survey of Persian Art, IV, pl. 240.
⁴ Ibid., I, 719-720. The Sasanian dating is here accepted but the Achaemenid possibility is discussed with some approval.
⁵ A. Stein, Ancient Khotan, II, pl. LXX.
⁷ See for instance Survey of Persian Art, IV, pl. 203 (Chosroes I); 208A (Bahram Gor); 239B (Bahram II).

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