PART ONE

The collapse of the eastern Mediterranean
This study relates the story of a series of well-documented climatic disasters that altered the face of the eastern Mediterranean in the mid eleventh century, leading to the physical decline of some of the most important civilizations and cultural centres of the time. The change was manifested in an exceedingly long series of droughts in the Nile Valley – no less than twenty-seven years of insufficient summer rises of the Nile in 125 years – that spread famine and pestilence throughout both Egypt and its neighbouring countries, in widespread droughts that affected the Levant and the eastern Mediterranean coast, and in extremely severe and long periods of freeze that affected the steppes of central Asia, Khurasan, Iran, the Jazira and Armenia. The climatic disasters began in AD 950, were very effective from the late 1020s onwards, attained their most disastrous effects during the mid 1050s, and were abated during the early 1060s (in Iran and Iraq) and the early 1070s (in Egypt and in Asia Minor).

The climatic disasters of 950–1072, however, were limited to the eastern Mediterranean and are not recorded in the western European or Iberian chronicles of the time. On the contrary, if climate is mentioned at all in contemporaneous western or Iberian chronicles, it is in the context of a period of comparative opulence and continuous calm. An imaginary line can be drawn, from Qayrawan in the southwest, through Rome and to the northern...
Balkans, to divide the regions that were affected by the climatic disasters from those which were spared and enjoyed the benefits of the mild climate of the ‘Medieval Warm Period’ or the ‘Medieval Optimum’, which prevailed in the west.

**A Wave of Nomadization and Dislocation**

The famines and pestilences that followed in the wake of the droughts and the cold spells led to the decimation of cities and agricultural provinces throughout the region. The cold spells, however, had additional widespread domino effects: they were followed by enormous waves of dislocation and outbound emigration of pastoralists, who left their freeze-stricken summer pastures and winter abodes, conveying violence to the neighbouring, equally drought-stricken provinces in their search for warm places, pastures, fodder and food. The lingering colds left the pastoralists with no other choice but to migrate to warmer regions and to have recourse to plunder for their own food. The domino effect was felt by countries that lay outside the region of the cold spell no less – very often much more – than it was by the countries in which the cold spells and droughts were the most severe.

**Collapse of Bureaucracies**

The climatic disasters were also accompanied by a collapse of bureaucratic and political institutions, which were unable to withstand the sharp decline in the state income, followed by a parallel increase in the expenditure of the state for defence against the nomads and for the supply of food for the starved populations. The economic crises led to the devaluation of currencies that reached, in the case of Byzantium, 27 per cent of the value of the
nomisma during the 1050s, or to the failure of states to finance their own armies and administrations. Unpaid soldiers and bureaucrats rebelled against and toppled numerous dynasties, including the ruling dynasties in Baghdad, Constantinople (both of them collapsed in the same year, 1055–6), Cairo and elsewhere. All of these collapses followed years of severe dearth that consumed the reserves and left central government without adequate means even for the needs of the ruling elites themselves.

THE CREATION OF NOMADIC STATEHOODS

The collapse of the well-established dynasties led, in several cases, to the creation of ‘nomadic statehoods’ – administrations which were created ad hoc by the victorious nomads, who found themselves in ruling positions. Such an entity is known to have existed in the past, but rarely, if ever before, do we have a detailed description of its creation and characteristics, as we have in the case of the takeover by the nomads of Baghdad, one of the most important cultural centres of the world at the time. The detailed accounts of the ‘conquest’ of Baghdad by the nomads contain unrivalled amounts of data concerning the development of such an entity.

THE DECLINE OF URBAN CULTURE

Some of the major cities and urban centres of the region, from Nishapur to Fustat, from Baghdad to Qayrawan and from Ramla to Ani were pillaged and conquered, partially destroyed and virtually deserted. Even cities as big as Constantinople or Rome underwent decline at the same time.

Smaller cities that had flourished uninterrupted since the Roman period now experienced decline or abandonment. Extensive recent
excavations show that many of the cities of Palestine, including Tiberias, Caesarea Maritima and Jerusalem were decimated within one decade, between the second half of the 1050s and the mid 1060s.

DESERTION OF MARGINAL AGRICULTURAL PROVINCES

Populous agricultural regions and hinterlands in eastern Asia Minor and Ifriqiya, in the Jazira and in the Negev declined and were no longer able to sustain the cities; many of them underwent desertification and never recovered. The most obvious examples are the settlements of the Negev and Ifriqiya, two provinces that had flourished since Late Antiquity and had successfully withstood the transition from the Roman and Byzantine regimes to the Early Muslim regime. Both underwent desertification and were abandoned during the climatic disaster of the tenth to eleventh centuries, either because of the violent activities of dislocated pastoralists (as was the case with Ifriqiya) or because of the drying up of the region (as was the case in the Negev).

DECLINE OF CULTURES

The conquest of Baghdad in 1055 coincides with the end of the period in which eastern Islam reached one of its highest intellectual achievements, known as the ‘Shi’a Golden Age’ or the ‘Renaissance of the tenth and the eleventh centuries’. Well-known institutions of learning and knowledge, public and semi-public libraries and academies were abandoned during this period, and were replaced, during the 1060s, by different types of learning. In some of the cases, where the dispersion of learning institutions or the looting of cultural treasures and libraries are well documented, the decline of the former intellectual centres of learning can be explained by the
Minorities and Islamization

Disasters intensify inter-religious strife and lead to the persecution of the undefended minorities: Christian, Zoroastrian and Jewish. Many of them were among the first to emigrate out of the region, leaving their impoverished and weakened communities behind. Christian dioceses ceased to exist, and the Christian population was reduced considerably. In some cases, persecutions were orchestrated by the authorities, probably in an attempt to direct the rage of the hungry mob away from the central administration that was unable to cater to their basic needs. Such persecutions during periods of dearth and hunger led in three separate cases to the looting and destruction of the Church of the Holy Sepulchre, to forced Islamization or to the deflection of destructive powers away from Islamic centres towards Christian ones.

All these events are well documented in contemporary literature and all the significant events were thoroughly studied by modern scholars. Dozens of chronicles written in Arabic, Greek, Syriac, Armenian, Coptic and Persian relate the history of the region at the time and describe the events in detail. The ecological crisis that hit the eastern Mediterranean during the tenth and eleventh centuries was probably the most documented climatic disaster in pre-modern history. The detailed documentation facilitates a comprehensive
Map 1.1 Nomadizations and dislocations in the eastern Mediterranean in the eleventh century.
reconstruction – sometimes on an annual or even a monthly basis – of this ecological disaster, and it might shed a better light on the evolution of similar, quasi-epic movements of dislocated pastoralists or of the sudden collapse of seemingly stable bureaucracies in the past. The crisis affected the limited (though vast) region of the eastern Mediterranean, and while it persisted for only a comparatively short period, it affected many cultures and was described by chroniclers trained in different intellectual environments. Therefore, the various descriptions of the crisis can be compared to various ‘cameras’ located at different angles to document a single event and to reflect the different attitudes and interpretations of the different cultural perspectives upon a single disastrous event.

Though all the significant events were properly studied, many of the studies attempted to provide separate political or economical explanations for the events and failed to mention cross-regional and non-political characteristics, while ignoring the concurrence of many of them. Each study explored only a part of a puzzle that is played out on a regional scale. Different and wider levels of analysis and interpretation are required, however. Thus, for example, the studies that refer to the disappearance of the age-old Jewish yeshivot of Babylon do not refer to the events in Iran and Mesopotamia at the same time, or to the activities of the Oghuz Turks in these regions, which occurred in that same period. The scholars who dealt with the crumbling of the Macedonian dynasty in Constantinople in 1055 and the rise of the first of the Comneni ignored the destruction of Baghdad and Qayrawan, which occurred almost at the same time, and so on.

The same probably holds true for the simultaneous desertification of Ifriqiya, the Negev and extensive areas in Asia Minor, together with the neglect of aqueducts in Palestine and Rome, or for the possible connection between the sack of libraries in Fustat.
and Baghdad and the end of the golden age of scientific and philosophical research in the eastern Islamic world and the hunger that prevailed in these centres during those years.

The simultaneity of such events is likely to escape scholarly attention because the events occurred in different countries and were narrated in sources written in various languages. Historians prefer to write histories of regions whose languages they read properly. The abundance and variety of the written sources, and the multiplicity of the languages in which they were written, led to the creation of many fragmentary and separate histories for the various subregions, and to the ignoring of the non-political and non-economic regional characteristics that tie them together. The history of contemporaneous western Europe, on the other hand, a region which is not much bigger than the eastern Mediterranean, is read as a comprehensive narrative referring to a single geographical unit both because of the scarcity of written sources and because many of them were written in Latin only.

Richard Bulliet’s recent volume should be mentioned here as a relevant exception. Bulliet tries to explain the decline of a major country (Iran) in the tenth and eleventh centuries by using non-political explanations: ‘Iran experienced a significant cold spell in the first half of the tenth century, followed by prolonged climatic cooling in the eleventh and twelfth centuries, [and] the colder weather affected not just Iran, but central Asia, Mesopotamia as far south as Baghdad, Anatolia and Russia.” Bulliet will be quoted extensively in this volume, but he, too, ignores the simultaneous effects of additional waves of nomads on both Asia Minor and the