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	 year flood hazard modeling and mapping; 4.3 Alluvial Fan Flood Modeling; 4.3.1 Developing an alluvial fan flood model; 4.3.2 2-D unsteady alluvial fan model limitations; 4.3.3 Alluvial fan sediment issues; 4.4 Important Criteria for Flood Hazard Delineation; 4.5 Hazard Mapping as a Planning Tool; 4.6 Flood Damage Mapping; 4.7 Alluvial Fan Mitigation Measures; References 5. Flood Hazard Mapping Versus Flood Risk Analysis5.1 Risk and Uncertainty of Alluvial Fan Flooding; 5.1.1 Concepts of flood hazard and flood risk: Hazard = risk; 5.2 Stochastic versus Deterministic Flood Hazard Assessment; 5.3 Stochastic Versus Deterministic Flood Hazard Assessment; 5.3 Stochastic Methods for Fan Flood Hazards; 5.3.1 Monte Carlo simulations; 5.3.2 Probability distributions representing physical fan parameters; 5.3.3 Random walk algorithm to determine flow paths; 5.3.4 Alluvial fan flood probability - creating the linkage between the stochastic model and the deterministic model 5.3.5 Evolution of the alluvial fan - modeling future conditions5.4 Integrating Alluvial Fan Flood Hazard Mapping and Damage Assessment; References; 6. Playa Lake Hazards and Resources; 6.1 Introduction; 6.1.1 Historic role of playas in military and civilian use; 6.2 Inundation of Playas; 6.2.1 Predicting the depth of inundation on playa lakes; 6.2.2 Predicting the duration of inundation on playa lakes; 6.3 Geologic Hazards on Playa Lakebeds; 6.3.1 Evolution of desiccation cracks on playas; 6.4 Playas as a Water Resource: Studies in Jordan; 6.4.1 Azraq basin 6.4.2 Playas in the Northeastern Badia
Sommario/riassunto	Alluvial fans are ubiquitous geomorphological features that occur throughout the world, regardless of climate, at the front of mountains as the result of erosion and deposition. They are more prominent in semi- and arid climates simply because of the lack of vegetative cover that masks their fan shapes in more humid areas. From both engineering and geological viewpoints, alluvial fans present particular fluvial and sedimentation hazards in semi- and arid regions because episodic rainfall-runoff events can result in debris, mud, and fluvial flows through complex and, in some cases, migratory ch