Despite how often they are dismissed as mere insects moving in orderly lines to transport food, ants, in fact, sustain a rigorously structured society that demonstrates division of labour, cooperation, and even mechanisms of mutual care in moments of crisis. Although their social organization is miniature in scale, it reflects fundamental principles that support the human communities.

I was raised in an earthquake-prone city in China. When the seismic waves of the Wenchuan earthquake reached it, I was only a toddler. Buildings swayed violently, and the physical cues humans rely upon to judge safety suddenly lost their credibility. The possibility of losing my world that was so stable only moments before have then become a lasting imprint on my memory.

Within my cultural context, ants are frequently portrayed as omens of impending earthquakes, as they are believed to exhibit abnormal behavior shortly before seismic events. While much attention is paid to how ants behave prior to earthquakes, discussions of their post-earthquake behaviors remain scarce. Yet the end of shaking does not mark a return to equilibrium. Underground soil structures remain fractured, fine cracks persist, and gases and water are redistributed beneath the surface. For ants, whose world is constructed from elaborate tunnel networks and scent-based communication, the environment becomes fundamentally unreliable.

Under stable conditions, ants depend on frequent antennal contact to confirm the condition of their nestmates. A brief touch, a pause, and then movement onward… It is these seemingly trivial interactions allow the colony to remain synchronized. However, when stability collapses, these patterns shift. Workers move with greater urgency, while reassuring contact becomes increasingly rare. Ants forage at atypical times, repeatedly alter their routes, and abandon trails that were once dependable, all in preparation for an anticipated threat.

Although briefly, humans experience a comparable state in the immediate aftermath of an earthquake. Following the quake, my family lived in an open park, sleeping in temporary tents and surviving on instant noodles. At night, sleep often escaped me, overtaken by fear. During these hours, I developed a habit of watching ants on the ground beneath the streetlights.

They wandered irregularly along the edges of light, no longer following the orderly formations I remembered. At that moment, I realized they were afraid as well. The recognition that other living creatures were experiencing a similar uncertainty brought me unexpected comfort. Imagining myself as one of them became an effective means of calming my own unease.

Only later did I learn that my inability to settle had a name: stress. For humans, stress is often transient. For ants, however, it can persist long after the disaster itself. If earthquakes were the

sole disturbance, ant colonies could recover much as humans do by gradually reestablishing labor divisions, restoring pheromone trails, and resuming brood care and nest repair, just like post-disaster reconstruction in human society.

For many years, earthquakes haunted me as recurring nightmares. Choosing geophysics as my major became my way of confronting that fear directly. With a deeper scientific understanding, I have made peace with my trauma, but I have never forgotten the child who once lay awake alongside ants in a park. Wanting to act on that memory, I began participating in environmental initiatives, joining my school's gardening society and serving as a sustainability student ambassador. Finally, Gradually, I recovered from the stress caused by the earthquake.

Yet earthquakes are not the only disruptions ants face. Garbage scattered across roads disrupts pheromone communication, while repeated construction activity continually disturbs the soil. Together, these forces keep ants in a state of chronic stress. During a volunteer activity clearing cigarette butts from flowerbeds, I also learned that bees are similarly pushed into chronic stress by small pieces of litter. This realization evoked sorrow in me as I realised all living beings must relearn stability after trauma, especially when we all live in a world where different levels of disruptions are inevitable.

Therefore, acts that protect other lives inevitably return something to ourselves. Simple actions like placing litter where it belongs may appear insignificant, yet their impact can extend far beyond what we readily perceive.