Abstract. We develop a theory of Riemann surfaces, harmonic maps, quadratic differentials, and measured foliations to investigate properties of Teichmüller spaces. We use two separate methods to determine the Teichmüller spaces of all finite Riemann surfaces up to homeomorphism. We will see how our constructions thus far relate to translation surfaces and dynamics on Riemann surfaces. We then proceed to discuss Jenkins Strebel differentials and their applications to measured foliations. Lastly, we prove the existence of Jenkins Strebel differentials with prescribed heights and core cylinders. This is done in two ways: first by admissible systems of curves, pair of pants decomposition, and Dehn twists, and second by harmonic maps.