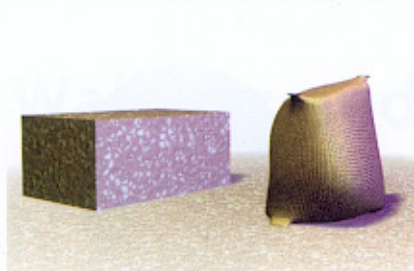
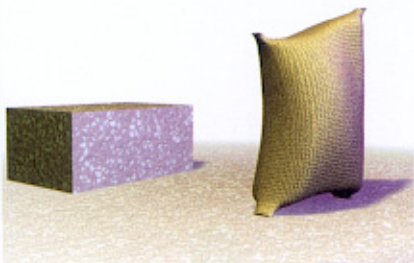


6. Pose the landing. As the character falls back to the ground, gravity stretches the lower part of the sack. Typically, both feet won't hit the ground at once, so keep this pose asymmetrical. This should take 8–12 frames.



7. As the flour sack's weight hits the ground, it will squash, perhaps bending over a bit as well. Squash it anywhere from 4–8 frames.



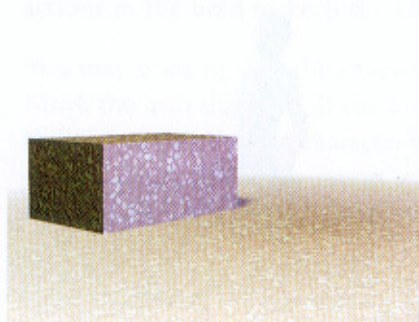
8. The sack finally stands up in a stable pose. It may need to take a step to get into this pose. After the poses are blocked out, play with the timing to get the best sense of weight. Standing up should take 6–12 frames.
9. After these major poses are set, tweak the timing to get overlap and follow-through. The timing given here is very rough. Learn to derive the timing yourself so that you understand what feels right and what doesn't.

Conclusion

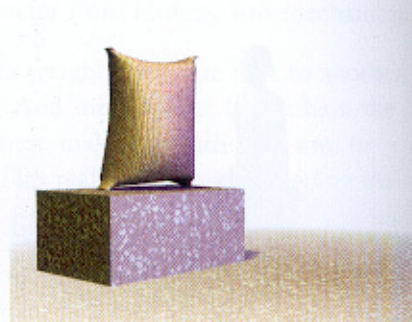
In this chapter, you explored the basic animation concepts, such as squash-and-stretch, anticipation, and secondary motion. These techniques are the palette of motion and the colors with which you bring your characters to life. These techniques tell you why and where to place the keyframes in an animation. The chapter also presented the basics of most 3D packages and how they relate to these concepts, which showed you how to set and manipulate the keyframes. Understanding these tools helps you control your characters and their motions better.

Exercise #5: Animating a Flour Sack

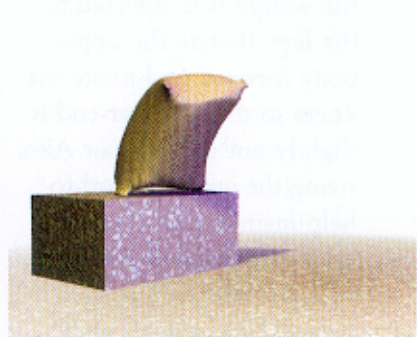
This last simple exercise makes a flour sack jump off a box and land. Animate this shot pose-to-pose by blocking out each of the major parts of the shot. Then, time the poses to get a good sense of weight. Finally, let the system in-between the poses and tweak from there.



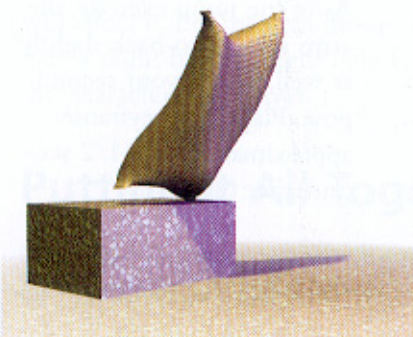
1. Create a simple set containing a box and a floor plane.



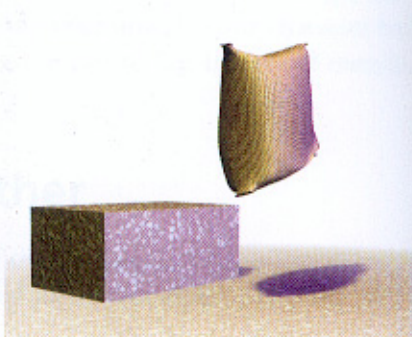
2. Place your flour sack in the set. Give the flour sack a natural starting pose. Asymmetrical poses are best.



3. To make the sack jump, it needs to get its weight into it. This is done by bending the character at the waist and anticipating the jump. This should take about 6–8 frames.



4. Create the take-off position. Stretch the sack upward while keeping the feet planted. This should take 4–6 frames.



5. Pose the top of the leap. The sack will not be stretched at the top of the leap. Remember slow-in and slow-out, which tells us the flour sack moves along a parabola. The feet also rotate forward a bit in preparation for landing. This should take 8–12 frames.