$|\mathbf{a}| = \sqrt{1+1+1} = \sqrt{3}$, so the scalar projection of $\mathbf{b}$ onto $\mathbf{a}$ is $\text{comp}_{\mathbf{a}}\mathbf{b} = \dfrac{\mathbf{a}\cdot\mathbf{b}}{|\mathbf{a}|} = \dfrac{1-1+1}{\sqrt{3}} = \dfrac{1}{\sqrt{3}}$ while the vector projection of $\mathbf{b}$ onto $\mathbf{a}$ is $\text{proj}_{\mathbf{a}}\mathbf{b} = \dfrac{1}{\sqrt{3}}\dfrac{\mathbf{a}}{|\mathbf{a}|} = \dfrac{1}{\sqrt{3}}\cdot\dfrac{\mathbf{i}+\mathbf{j}+\mathbf{k}}{\sqrt{3}} = \frac{1}{3}(\mathbf{i}+\mathbf{j}+\mathbf{k})$.