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Cover Bubbles emanating from the fish represent DNA methylation information inherited from their parents. Their dark or light color denotes methylated or unmethylated CpGs. Different shapes of the seagrass represent open or closed chromatin. In this issue, two distinct mechanisms for how inherited DNA methylation signatures prime the global re-establishment of accessible chromatin during zebrafish embryogenesis are reported. (Cover illustration by Yiqing Chen. [For details, see Liu et al., pp. 998–1007.])