Integration of cocycles

Let $c(K)$ be cocycle on algebra of vector fields on $\mathbf{R}$. How to take its integral. I still did not calculate the role of being cocycle, e,t,x,, but if $z = z(t;x)$ be an arbitrary diffeomorphism, and Φ be one cocycle on group then for infinitesimal τ ($\tau^2 = 0$)

$$\Phi(z(t+\tau;x)) - \Phi(z(t;x)) = c(K = z_t) \text{ at the point } z\,,$$

i.e.

$$\frac{\partial \Phi(z)}{t} = c(K = z_t) \text{ at the point } z\,,$$

Example. Consider cocycle

$$c(K) = K_{xx}|dx|$$

Then we have

$$\frac{\partial \Phi(z(t,x))}{\partial t} = z_{tzz}|dz| = \left(\left(\frac{z_{tx}}{z_x}\right)_x \cdot \frac{1}{z_x}\right) z_x|dx| =$$

$$\left(\frac{z_{tx}}{z_x}\right)_x |dx| = \frac{\partial^2}{\partial x \partial t}\left(\log z_x\right)|dx| = \frac{\partial}{\partial t}\left(\frac{\partial \log z_x}{\partial x}\right)|dx|$$

$$\Phi(z(x)) = \frac{z_{xx}}{z_x}|dx|$$

sure here we suppose that a function $z(x)$ is ubcluded in the exponent $z(t,x)$. (il faut formuler plus exactement.....)

Schwarzian: $c(K) = K_{xxx}|dx|^2$