$$\Rightarrow \log h(z+\lambda_{n+r}) = \log h(z) - 4\pi\, Im(z_r)$$
$$\Rightarrow h(z+\lambda_{n+r}) = e^{-4\pi Im(z_r)} h(z) = |e^{2\pi i z_r}|\, h(z).$$

Now we can compute the curvature form Θ_L associated to the metric in L given by h:

$$\Theta_L = \partial\bar\partial \log \frac{1}{h}$$
$$= -\frac{\pi}{2}\partial\bar\partial \Big(\sum_{\alpha,\beta} W_{\alpha\beta}(z_\alpha - \bar z_\alpha)(z_\beta - \bar z_\beta - 2i Y_{\beta\beta})\Big)$$
$$= \frac{\pi}{2}\partial \Big(\sum_{\alpha,\beta} W_{\alpha\beta}\big((z_\alpha - \bar z_\alpha)\, d\bar z_\beta + (z_\beta - \bar z_\beta - 2i Y_{\beta\beta})\, d\bar z_\alpha\big)\Big)$$
$$= \pi \sum_{\alpha,\beta} W_{\alpha\beta}\, dz_\alpha \wedge d\bar z_\beta .$$

See P13 & P15 & P148.

By the facts $\bar\partial z_\alpha = 0$, $\bar\partial \bar z_\alpha = d\bar z_\alpha$, $\partial z_\alpha = dz_\alpha$ and $\partial \bar z_\alpha = dz_\alpha$, we get the above. $d = \partial + \bar\partial$.

We want to express this in terms of the basis $\{dx_\alpha, dx_{n+\alpha}\}$; we have

$$dz_\alpha = \delta_\alpha\, dx_\alpha + \sum_\beta z_{\alpha\beta}\, dx_{n+\beta},$$

$$d\bar z_\alpha = \delta_\alpha\, dx_\alpha + \sum_\beta \bar z_{\alpha\beta}\, dx_{n+\beta},$$

so

$$\Theta_L = \pi \sum W_{\alpha\beta}\, dz_\alpha \wedge d\bar z_\beta$$