These entries are $\omega_1 = da$, $\omega_2 = dc$, $\omega_3 = -c\,da + db$.
In particular,

$$d\omega_3 = \omega_1 \wedge \omega_2,$$

so that ω_3 is a nonclosed holomorphic form on M. If we consider ω_3 as defining a class in ${}'E_1^{1,0} \cong H_{\bar\partial}^{1,0}(M) = H^0(\Omega_M^1)$, then

$$d_1[\omega_3] = [d\omega_3] = [\omega_1 \wedge \omega_2]$$

is nonzero in ${}'E_2^{2,0}$.

「 $\bar\partial\omega_3 = \bar\partial(-c\,da + db) = 0$, since a, b, c are holomorphic, and da & db are $(1,0)$ type forms.
$\Rightarrow$ $[\omega_3] \in H_{\bar\partial}^{1,0}(M) \cong {}'E_1^{1,0}$ by the argument on P443.

$$\begin{array}{ccc} {}'E_1^{1,0} & \xrightarrow{\partial = d_1} & {}'E_1^{2,0} \\ \cup & & \cup \\ [\omega_3] & \longmapsto & [\partial\omega_3] = [d\omega_3] = [\omega_1 \wedge \omega_2] \neq 0 \end{array}$$

$\operatorname{Ker} d_1 \not\ni [\omega_3]$. $\Rightarrow$ $[\omega_3] \notin {}'E_2^{1,0}$ $\Rightarrow$ ${}'E_1^{1,0} \neq {}'E_2^{1,0}$.
since $\dim E_1^{1,0} > \dim E_2^{1,0}$ if $[\omega_3] \notin \ker d_1$
$(\because$ $\dim \ker d_1 < \dim E_1^{1,0}$ and $\dim \ker d_1 \geq \dim \frac{\ker d_1}{\operatorname{im} d_1} = \dim E_{1+1}^{1,0}$. $)$ 」

「 A little more on $M \longrightarrow \mathbb{C}^2/\mathbb{Z}^{2\times 2}$

Let $W = \{ (z_1, z_2) \in \mathbb{C}^2 :\ 0 < \operatorname{Re} z_1 < 1 \quad 0 < \operatorname{Im} z_2 < 1$
$\frac{1}{2} < \operatorname{Re} z_2 < \frac{3}{2} \quad 0 < \operatorname{Im} z_2 < 1 \}$, and $\pi(W) = W'$.

$$\begin{array}{ccc} \phi^{-1}(W') & \xrightarrow{\varphi_{W'}} & W' \times \mathbb{C}/\mathbb{Z}^2 \\ \cup & & \\ g\Gamma & \longmapsto & ([(a,c)],\ [b]) \\ \| & & \\ \begin{pmatrix} 1 & a & b \\ 0 & 1 & c \\ 0 & 0 & 1 \end{pmatrix}\Gamma & & 0 < \operatorname{Re} a < 1 \quad 0 < \operatorname{Im} a < 1, \quad \frac{1}{2} < \operatorname{Re} c < \frac{3}{2} \\ & & 0 < \operatorname{Im} c < 1. \end{array}$$