

DISTRIBUTION OF INTENSITIES

By DR. LUIS SIERRA VERA

Note. Dr. Luis Sierra of Copiapo, a devoted student inspired by Comte Montessus de Ballore, undertook the labor of analyzing the responses to the questionnaires, which were sent out to secure information regarding the personal experiences and observations of the inhabitants in the shaken region. The three hundred answers have been summarized in an earlier part of this volume (pages 42 to 45), but no attempt was there made to evaluate the intensities at different points. To this task Dr. Sierra brought special experience and knowledge of his countrymen. His digest of the data and his estimates of intensity, expressed in terms of the Rossi-Forel scale, are given in the following tables. The localities are arranged in order of latitudes, from north to south. B. W.

place	name	hour	Furniture overturned	ground	house	damage	Intensity (Rossi-Forel)	
El Salado	Carlos Jorquera D.	11 55	Sideboard, cabinets, etc.	alluvion	wood with corrugated iron roof			
Chañaral	Raphael Basaure C.	11 30	Nothing fell	slag heap	wood with galvanized iron	none		
	Guillermo Zepeda		None	solid	wood with roof of corrugated iron	none		
	Maria Toro de Zevallos		None	beach sand	wood with corrugated iron	none		
	Oswald Fernie		Nothing fell	sand	wood frame with zinc	none		
Potrerillos	Luis S. Rojas A.	11 50	Nothing fell	solid	Adobe, wood and zinc	insignificant	8	
	Hermojenes Pizzaro		do.	limey beds	corrugated iron	none	7	
	Enrique Vicuna		11 55	pictures, etc	solid	Adobe and wood frame	slight	8
	Manuel Ossandon		11 50	nothing	alluvion	Adobe	only cracks	8
	Jose Figueroa		11 55	Nothing fell	solid	Canvas	none	7
	Valentin Pena		11 50	nothing	wash	Adobe	slight	8
	Jorje Vallejos Gallo		11 50	do.	solid	Adobe and wood	slight	8
Caldera	Francisco Linandarija	11 50	Nothing fell	solid	wood	none	7	
	Enrique Escobar	11 45	do.	do	with cane and roof of zinc	none	7	
	Jorge Lado Bercera	11 50	none		cane with mud and zinc	none	7	
	Bernardo Tornini	11 50	Nothing fell	rocky	do.	none	7	
	Guillermo W. Lara	11 55	none	silt	wood cane and mud	none	7	
	Ana S. de Baez	11 48	Nothing fell	solid rock	wood with roof of zinc	none	7	
	Jose Rubio	11 53	do.	clayey	tapiales and adobes	Appreciable	8	
	Santiago H. Faull	11 45	do.	solid	Adobes cane and wood	slight	8	
Puquios	Arturo A. Cabrera	11 55	Nothing fell	Alluvion	wood frame adobe and wood	Appreciable	8	
	Jacinto Herrera A.	11 55	tables, wardrobes, etc.	do.	wood frame	do.	8	
	A. Mahuecin Robledo	11 55	tables, cabinets, etc.	do.	adobe and wood	Considerable	9	
Copiapo	Carlos A. Gonzales	11 55	Sideboards and small table	alluvion	framework with Guayaquil cane	uninhabitable	10	
	Francisco E Yuraszeck G.		nothing	do.	pine wood	partial destruction	9	
	Ramon Albornoz	11 48	everything	do.	Tapiales, adobes, wood, and guayaquil cane	destroyed	10	
	Luis A. Romo Ch.	11 55	various furniture	firm	wood with guayaquil cane	heavy damage	9	

Federico Melendez M		nothing	do	wood frame	small	9
Juan de D. Picon	11 50	a bureau	alluvion	tapials and adobes	moderate damage	9
Alfredo R. Ansieta	11 50	various furniture	do	walls and wood frame	heavy damage	9
Manuel F. Munizaga	11 50	cabinets and statuary	do	adobes and adobes with wood	do.	9
Manuel Corona F.	11 50	some	do	wood with guayaquil cane	moderate damage	9
Ernesto Berg. Floto	11 50	wardrobe and iron safe		Tapiales, adobes and wood frame	heavy damage	9
Ernesto Pareda L.	11 55	one table	very alluvial	Tapiales, adobes and wood frame	do.	9
Manuel Castillo Z.	11 50	wardrobes and cabinets		Frame with brush	uninhabitable	10
Jorje Laferriere	11 50	some	alluvial	Adobes and Tapiales	do.	10
Crisologo Cispedes	11 45	much	sedimentary	wood frame with guayaquil cane	heavy damage	9
Jorje Barquin V.	11 45	some	Alluvion	walls and wood frame	roofs destroyed and base of walls	9
Domingo Riveros T.		destroyed	do	tapiales and adobes	total destruction	10
Ramon Rosas A.		nothing		tapiales	heavy damage	9
Luis Gmo. Brand	11 46		firm	wood frame	appreciable	8
Jose Escauriza		cabinets and shelves	alluvion	wood frame	do.	8
Ladislav Agullo	11 50	part of clothes press.	do	do.	heavy damage	9
Margarita, V. De pellegrini		all the furniture	do	do.	Appreciable	8
Alberto Vallejos C.	11 50	wardrobes	firm ground	do.	moderate	8
Roberto Meeks V.		many fell, others not.	soft	do.	Considerable	9
Felix Piuciro O.	11 50	everything fell	wash	Wood frame boards and some adobe	do.	9
Horacio Arce B	11 55	a cabinet	alluvion	wood frame with zinc roof	Appreciable	8
Julio A. Bravo	11 50		do	wood frame, boards and mud	do.	8
Vincente Rogers C.	11 48	some, such as bookcases	do	wood frame	do.	8
Aristides G. Garcia	11 47	did not fall, but moved toward west	near hill	adobes, wood, and corrugated iron	moderate	8
Fabriciano Morales	11 55	a cabinet		wood frame	insignificant	8
Oscar Letelier	11 55	wardrobes and shelves	sediment	Adobes, cane, and wood	moderate	8
Lidia Richards	11 55	nothing fell		Mud	insignificant	8
Pedro Villagran	11 50	cabinets, small tables, wardrobes, etc.	alluvion	Adobes and corrugated iron	Appreciable	8
Samuel Jenkins	11 50	wardrobes	do	Wood and cane	slight	8

	Francisco Finus	11 55	cupboards and tables		Adobes and wood frame	Appreciable	8
	Anjel E. Guerra O	11 53	wardrobes and cabinets	wash	Tapiales and cane	considerable	9
	Guillermo Barth C	11 45	wardrobes and cabinets	alluvion	Adobes and wood frame	Appreciable	8
	Ricardo A. Vallejos	11 55	bureaus and wardrobes	do	wood frame	do.	8
	J. Amadio Beluzan	11 55	heavy wardrobes		cane and mud	moderate	8
	Amalia Julio Vda. De Amor		many articles of furniture	on solid hill	Adobes and cane	Considerable	9
	Manuel meneses R	11 50	one round table with three legs	alluvion	Adobes wih wood	moderate	8
Tierra Amarilla	Lorenzo Jofre Flore	11 55	wardrobes and others	alluvion	Cane with wood and mud	considerable	9
	Jose Felix Zamorano	11 54	shelves etc	do.	wood, brush and roof of zinc	Appreciable	8
	Juan 2nd Echeverria	11 55	a wardrobe	firm	wood frame	moderate	8
	Pedro Cerda	11 45	some fell	alluvion	wood frame with cane	do.	8
	Carmelo Destefani	11 45	buffets, tables, etc.	firm	wood with cane	do.	8
	Eduardo Thaden	11 55	wardrobes, cabinets, etc.	alluvion	cane and mud	Appreciable	8
	Martin Vitali	11 45	tables, chairs, etc.	rock and alluvion	cane, mud and wood	Considerable	9
Carrizal Bajo	Pedro Cuello	11 50	tables, wardrobe, etc.	firm rock	wood, mud and corrugated iron	slight	8
	Vincente Arredondo		bookcases with books.	firm	wood	none	7
	Fernando A. Zadivich	11 56		solid rock	wood and corrugated iron		
	Carlos A. 2nd Echegaray	11 56	nothing fell	rocky	wood	none	7
	Juan A. Contreras			solid rock	wood	none	7
	Tomas C. Tello	11 55	none	solid	wood with mud	none in buiding	7
Huasco	Luis Hurtado V.	11 55	all the furniture		adobes with wood and zinc	Considerable	9
	J. Manuel Villanueva	11 50	nothing fell	alluvion	tiles and adobes with zinc roof	uninhabitable	10
	Clodomiro Marticorona	11 55	nothing	solid	wood frame and zinc	slight	8
	Pedro Cruz	11 50	some boxes	solid	wood and zinc	none	7
	Antonio Montero	11 55	wardrobes, cabinets, tables, etc	solid	wood frame and zinc	Considerable	9
	Francisco Quinones	11 55		solid	do.	sight	8
	Pedro 2nd Ruiz	11 50	wardrobes, sideboards, tables, etc	alluvion	wood frame with adobes and mud	uninhabitable	10
Freirina	L. Vega A.		nothing fell	solid	brush and mud	insignificant	8
	Braulio Blanco Torres		cabinets, etc.	gravel	wood frame and corugated iron	moderate	8

	Felix M. Amengual	11 58	nothing fell	solid	tapiales and adobes	Considerable	9
	Luis A. Roman	11 54	cabinets, tables, etc.	do.	adobes wood and zinc	moderate	8
Vallenar	Silvano Vargas M.	11 40	wardrobe, sideboard and shelves	Alluvion	Adobe with woven brush	uninhabitable	10
	Eduardo Wolf	11 45	contents of shelves	of gravel	wood frame with small adobes	moderate	8
	Ivan Franulie	11 50	mostly pictures	Alluvion	Adobe with boards and corrugated iron	heavy damage	9
	Alejandro Flores	11 55	tables, boxes, stands, etc.	do.	Tapiales , adobe and zinc roof	very great	9
	Zacarias Rocas, G.	11 55	various articles of furniture	do.	Adobe, wood and corrugated iron	Considerable	9
	Custodio Cruz		everything fell	Coarse stream wash	tapiales and adobes	uninhabitable	10
	Arsenio Tapia, O.		pictures and racks	Alluvion	Adob and wood	do.	10
	Manuel Varela, D.	11 50	wardrobe	do.	Tapiales wood and mud	uninhabitable	10
	Ceferino Tornero		all furniture	firm	Adobe, wood and zinc	moderate	8
	Francisco Cantuarias	11 57		Alluvion	tapiales, adobe and wood	Considerable	9
	Pascual Soler	11 50	everything buried	do.	tapiales and adobes	heavy damage	9
	Ricardo Adriazola	11 54	wardrobes and washstands	Coarse stream wash	Walls adobe and wood frame	Considerable	9
	Hernando Osandon	11 54	the furniture did not fall	Made ground	wood frame with galvanised iron	small	8
	Guillermo Gray, L.	12 0	wardrobes, stands, etc.	Alluvion	Tapiales, adobe and wood	very appreciable	9
	Luis de Block	11 55	almost everything	Bed of old river	Adobe walls and zinc roof	walls shook much; roof did not	9
	Leoncio Bardian	11 46	furniture was crushed	Alluvion	Adobe wall, wood frame and wood	uninhabitable	10
	Delfina P. v. de Femenias	11 55	much was demolished		Adobes and wood frame, roof of boards and zinc	do.	10
	Erminia C. de Diaz		all the furniture	Alluvion	wood, zinc, corrugated iron and tapiales	do.	10
	Elba J. Pinto		do.		Tapiales with thatched roof	do.	10
	Augustin Barraza	11 55	sideboard		wood frame, adobe	only in walls	8
Ester Flores de Mery		nothing fell over	Alluvion	tapiales and adobes with zinc roof	uninhabitable	10	
Pantaleon Barraza		do.	Sandy	Adobe and wood	Considerable	9	
Francisco Diaz	11 55	everything fell	Alluvion	Tapiales and wood	uninhabitable	10	
Hector Mieres, A.	11 49	tables, chairs, etc.	Firm	Adobe, wood frame and zinc	do.	10	
Jose M. Caballero		wardrobes, pictures, etc.		Adobe walls, Adobes and wood	moderate	10	
Rosa, Juleta, J.		furniture did not fall		Adobes, wood frame and wood	appreciable	10	

	Transito v. de Ordenes	11 50	everything fell		Mud walls and adobes	uninhabitable	10
	Abdon Naini	11 55	do.	Sandy	Adobes and mud walls	do.	10
	Abraham Q. Rodriguez		do.	Alluvion	Adobes	Considerable	9
	Hernando Mancilla			Alluvion	Tapiales and adobes	uninhabitable	10
	Carlos Aguilar	11 50	bookshelves, bureaus, etc.	Earth	Tapiales, adobes and zinc	do.	10
	Luis A. Hidalgo	11 55	everything fell	Alluvion	Tapiales and thatch	do.	10
	Max Nolff	11 50		do.	Tapiales with zinc roof	do.	10
	Juan A. Pereira	11 50	much fell		Adobes and wood frame	moderate	8
	Guillermo Gallo	11 50	wardrobes, bookshelves, etc.	Sedimentary	Adobes and wood	Considerable	9
	Victor Arochas	11 40	all the furniture	Alluvion	Wood frame and adobes	do.	9
	Hector Miranda		nothing fell from movement		Tapiales and adobes	do.	9
	Pablo A. Morales	11 55	everything fell		Adobes, wood frame and zinc	uninhabitable	10
	Maximo Reygadas	12 0	nothing fell	Alluvion	Adobes, tapiales and corrugated iron	Considerable	9
	Ventura Galan	11 45	everything fell		Tapiales, adobes, wood and corrugated iron	uninhabitable	10
La Serena	Gustavo Lagos	11 50	nothing fell	solid, rocky	Adobe and wood	insignificant	8
	Jose M Zarate	11 47	a mirror	rocky	Adobes and zinc roof	moderate	8
	Blanc D. de Lazo	11 50	nothing	firm	adobes and wooden roof	nothing	7
	Josias Richards C.	11 50	a goblet from the table	firm	Adobes and wood frame	moderate	8
	Pedro Godoi L.	12 15	some pictures	firm	wood frame, adobes and zinc roof	Appreciable	8
	Maria E. Araya	12 10	some small tables	solid	adobes and wood	do.	8
	Oscar Miranda G.	11 55	mostly tables	solid	tapiales, wood and corrugated iron	none	7
	Antolin Anguita B.	12 0	objects from shelves	firm	Adobes and zinc roof	moderate	8
	Federico Kuhlmann	11 55	pedestal with vase	firm	Tapiales, wood frame and galvanized iron	Appreciable	8
	Eulojio Robles R.	11 50	nothing fell	solid	wood and zinc	insignificant	8
	Alfredo Claussens	11 52	do.				
	Luis F. Alfaro V.	11 55	some furniture		Tapiales, adobes and wood frame	insignificant	8
	Maria L. Pinto	11 56	no furniture fell	solid	Adobes with zinc	none	7
	Luis R. Barraza	11 47		rocky	Adobes, wood and zinc	slight	8
	Oscar Cabezas B.	11 55	nothing fell	solid	Adobes	insignificant	8

Emilio de la Torre	11 50	do.	solid	Adobes and wood	moderate	8
Hugo Bravo R.	11 55	all the furniture	alluvion	Adobes and wood	heavy damage	9
Julio Mantero	11 55	nothing fell	firm	Adobes, wood frame and zinc	insignificant	8
Rosa Cortez A.	11 55	do.	solid	Wood frame and adobes	none	7
Bernardo Cortiz D.	11 50	tables, pictures, etc	firm	Adobes, wood, and zinc	slight	8
Eduardo Olivares C.	11 57	wardrobes, sideboards, tables, etc.	solid	light material	do.	8